

United States  
Circuit Court of Appeals  
For the Ninth Circuit. 9

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THE SIMPLEX WINDOW COMPANY, a Corporation,

Appellant,

vs.

HAUSER REVERSIBLE WINDOW COMPANY, a Corporation, FRED HAUSER  
and JESSIE HAUSER,

Appellees.

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Transcript of Record.

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Upon Appeal from the Southern Division of the  
United States District Court for the  
Northern District of California,  
Second Division.

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Filed

AUG - 7 1917

F. D. Monckton,

Clerk.



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur.]

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UNITED STATES OF AMERICA.

*District Court of the United States, Northern  
District of California.*

CLERK'S OFFICE.

No. 244—IN EQUITY.

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,  
vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,  
Defendants.

**Praeceptum for Transcript of Record.**

To the Clerk of Said Court:

SIR: Please prepare record on appeal in the above-entitled case to consist of the following papers:

1. Bill of Complaint.
2. Answer.
3. Memorandum of Judge Rudkin.
4. Final Decree.
5. Stipulation Fixing Amount of Security on Appeal.
6. Petition for Order Allowing Appeal.
7. Assignment of Errors on Appeal.
8. Order Allowing Appeal.
9. Bond on Appeal.
10. Stipulation Admitting Incorporation of Plaintiff and Defendant and Permitting Use of Uncertified Copies of Patents.
11. Statement of Evidence on Appeal.

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12. Stipulation *in re* Statement of Evidence on Appeal.
13. Order Allowing Withdrawal of Original Exhibits.
14. Citation on Appeal.
15. Certificate of Clerk to Record on Appeal.

JOHN H. MILLER,  
Attorney for Plaintiff. [1\*]

Service of the within Praecipe for Transcript on Appeal admitted this — day of May, 1917.

SCRIVNER & HETTMAN,  
Attys. for Defendants.

[Endorsed]: Filed May 9, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [2]

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*In the District Court of the United States for the  
Northern District of California, Second Division.*

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY,  
FRED HAUSER and JESSIE HAUSER,  
Defendants.

**Bill of Complaint for Infringement of Patents Nos.  
1,072,669 and 1,159,604.**

Plaintiff above named complains of the defendants above named, and for cause of action alleges:

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\*Page-number appearing at foot of page of original certified Transcript of Record.



1. That the full name of the plaintiff is The Simplex Window Company, and during all the times hereinafter mentioned said plaintiff was and still is a corporation created under the laws of the State of California and having its principal place of business in the City and County of San Francisco, State of California.

2. That the full names of the defendants are Hauser Reversible Window Company, Fred Hauser and Jessie Hauser, and that at all the times hereinafter mentioned said Hauser Reversible Window Company was and still is a corporation created under the laws of the State of California, and having its principal place of business in the City and County of San Francisco, State of California; and during all said times the defendants, Fred Hauser and Jessie Hauser, were and are residents of the City and County of San Francisco, State of California.

3. That the ground upon which the Court's jurisdiction depends is that this is a suit in equity arising under the patent laws of the United States.

4. That heretofore, to wit, on August 21, 1912, one [3] Arthur C. Soule was the original and first inventor of a certain new and useful invention, to wit, an improvement in windows, and on that day filed in the Patent Office of the United States an application praying for the issuance of letters patent therefor; that thereafter and before the issuance of letters patent therefor said Soule, by an instrument in writing, sold and assigned all his right, title, and interest in and to said invention and such let-

ters patent as might be issued therefor, to plaintiff herein, The Simplex Window Company.

5. That thereafter, to wit, on September 9, 1913, letters patent of the United States for the said invention, dated on said last-named date and numbered 1,072,669, were granted, issued and delivered by the Government of the United States to plaintiff herein, The Simplex Window Company, as the assignee of the said Soule, whereby there was granted to the plaintiff and its successors and assigns, the sole and exclusive right and privilege to make, use and vend the said invention throughout the United States of America and the territories thereof during the period of seventeen years from September 9th, 1915; that a more particular description of the said invention patented in and by said letters patent will fully appear from the said letters patent themselves which are ready in court to be produced by the plaintiff.

6. That heretofore, to wit, on October 31, 1911, one Arthur C. Soule and one Lewis A. Larsen were the original, first and joint inventors of a certain new and useful invention, to wit, an improvement in windows, and on said last-named date filed in the Patent Office of the United States an application for letters patent for said invention; that before the issuance of any patent therefor, said Soule and Larsen, by an instrument in writing, sold and assigned to the plaintiff herein, The [4] Simplex Window Company, all their right, title, and interest in and to said invention and such letters patent as might be issued therefor.

7. That thereafter, to wit, on November 9, 1915, letters patent of the United States for said invention, dated on said last-named date and numbered 1,159,604, were granted, issued and delivered by the Government of the United States to the plaintiff herein, The Simplex Window Company, whereby there was granted to the plaintiff, its successors and assigns the sole and exclusive right to make, use and vend the said invention throughout the United States of America and the territories thereof during the period of seventeen years from November 9, 1915; that a more particular description of said invention will fully appear from the said letters patent themselves which are ready in court to be produced by the plaintiff.

8. That the inventions covered by the said two letters patent are capable of conjoint use in one and the same machine, and have been so used by the plaintiff.

9. That ever since the issuance of said two letters patent, plaintiff has been and still is the sole owner and holder thereof, and of all the rights, liberties and privileges thereby granted, and has made, used and sold devices containing and embodying the inventions aforesaid, and upon each of the same has stamped the word "Patented," together with the dates and numbers of the said two letters patents.

10. That since the issuance of the said two letters patents, in the Northern District of California, and without the license or consent of the plaintiff, the defendants herein have jointly made, used and sold devices containing and embodying the inven-

tions patented in and by said two letters patents, and that each of the devices so made, used and sold [5] by the defendants contains the inventions patented in and by the said two letters patents.

11. That by reason of the infringement aforesaid, defendants have realized profits and plaintiff has suffered damages, but the amount of such profits and damages is unknown to the plaintiff and can be ascertained only by an accounting.

12. That plaintiff has requested the defendants to cease and desist from infringing upon the said letters patents and to account to the plaintiff for the profits and damages aforesaid, but defendants have failed and refused to comply with such request, or any part thereof.

13. That the defendants threaten to continue the said infringement, and unless restrained therefrom by this Court will continue the same, whereby plaintiff will suffer great and irreparable injury and damage, for which it has no plain, speedy, or adequate remedy at law.

WHEREFORE, plaintiff prays judgment and decree against the defendants as follows:

First. That upon final hearing the defendants herein, and each of them, their and each of their officers, agents, servants, attorneys, workmen and employees, and each of them, be permanently and firmly enjoined and restrained from making, using or selling any device, machine or apparatus which infringes upon the said letters patents, Nos. 1,072,669 and 1,159,604, or either of them, and that a writ of injunction be issued out of and under the seal of this

court enjoining the said defendants and each of them, their officers, agents, servants, attorneys, workmen and employees, and each of them, as aforesaid.

Second. That upon the filing of this bill of complaint, a preliminary injunction be granted enjoining and restraining the defendants, and each of them, their and each of their officers, [6] agents, servants, attorneys, workmen, and employees, and each of them, *pendente lite*, from making, using or selling any device, machine or apparatus which infringes upon the said letters patent, or either of them.

Third. That plaintiff have and recover from the defendants the profits realized by the defendants and each of them, and the damages sustained by the plaintiff, from and by reason aforesaid, together with costs of suit, and such other and further relief as to the Court may seem proper and in accordance with equity and good conscience.

THE SIMPLEX WINDOW COMPANY,

By L. C. LARSEN,

President.

JOHN H. MILLER,

Solicitor and Counsel for Plaintiff,

723-6 Crocker Building,

San Francisco, California.

United States of America,

Northern District of California,

City and County of San Francisco,—ss.

A. C. Soule, being duly sworn, deposes and says that he is manager of the Simplex Window Com-



pany, plaintiff in the within-entitled action; that he has read the foregoing bill of complaint and knows the contents thereof; that the same is true of his own knowledge, except as to the matters which are therein stated on his information or belief, and as to those matters, that he believes it to be true.

A. C. SOULE.

Subscribed and sworn to before me this 29th day of January, 1916.

[Seal]                      GENEVIEVE S. DONELIN,  
Notary Public in and for the City and County of  
San Francisco, State of California. [7]

[Endorsed]: Filed Jan. 31, 1916. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [8]

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*In the District Court of the United States for the  
Northern District of California, Second Divi-  
sion.*

(No. 244.)

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,  
vs.

HAUSER REVERSIBLE WINDOW COMPANY,  
FRED HAUSER and JESSIE HAUSER,  
Defendants.

**Answer.**

The joint and several answer of Hauser Reversible Window Company, Fred Hauser and Jessie Hauser, defendants above named, to the bill of complaint of The Simplex Window Company, complainant.

These defendants, and each of them, now and at all times hereafter saving and reserving unto themselves all benefit and advantage of exception which can or may be had or taken and the many errors, uncertainties or any imperfections in said complainant's bill of complaint contained, come and answer thereto, or unto so much and such parts thereof as these defendants and each of them, are advised is or are material or necessary for them to make answer unto, and say:

I.

*That* admit that the full name of the plaintiff is The Simplex Window Company, and during all the times hereinafter mentioned said plaintiff was and still is a corporation created under the laws of the State of California, and having its principal place of business in the City and County of San Francisco, State of California.

II.

They admit that the full names of the defendants are Hauser Reversible Window Company, Fred Hauser and Jessie Hauser, and that all the times hereinafter mentioned said Hauser Reversible Window Company was and still is a corporation [9] created under the laws of the State of California, and having its principal place of business in the City and County of San Francisco, State of California; and that during all said times the defendants, Fred Hauser and Jessie Hauser, were and now are residents of the City and County of San Francisco, State of California.

## III.

These defendants, further answering unto the said bill of complaint, say that as to whether or not on the 21st day of August, 1912, or at any other time whatsoever, one Arthur C. Soule was the original or first inventor of a certain or any new or useful invention, to wit, an improvement in windows, or any other invention whatsoever, or as to whether said alleged invention was either new or useful, these defendants are not informed save by the bill of complaint herein, and they therefore deny the same, all and singular, and leave complainant to make such proof thereof as it may be advised is material. They are not informed except by the bill of complaint herein as to whether or not before the issuance of letters patent therefor, or at any other time whatsoever, said Soule by an instrument in writing, sold or assigned to the plaintiff herein, The Simplex Window Company, all or any of his right or title or interest in or to said alleged invention in windows, or such letters patent therefor as might be issued, and they therefore deny the same, all and singular, and leave complainant to make such proof thereof as it may be advised is material.

## IV.

They admit that heretofore and on August 21, 1912, one Arthur C. Soule filed in the patent office of the United States an application praying for the issuance of letters patent for an alleged improvement in windows and that thereafter and on September 9, 1913, letters patent of the United States for said alleged invention dated the said last-named date and



numbered 1,072,669, were granted, issued and delivered by the Government of the [10] United States to plaintiff herein, The Simplex Window Company, as the assignee of the said Soule.

V.

These defendants, further answering, say as to whether or not on the 31st day of October, 1911, or at any other date whatsoever, one Arthur C. Soule and one Lewis A. Larsen, were the original or first or joint inventors of a certain or any new or useful invention, to wit, an improvement in windows, or any other invention whatsoever, or as to whether said alleged invention was new or useful, these defendants are not informed save by the bill of complaint herein, and they therefore deny the same, all and singular, and leave complainant to make such proof thereof as it may be advised is material. They are not informed except by the bill of complaint herein as to whether or not before the issuance of any patent therefor, or at any other time whatsoever, said Soule and Larsen, by an instrument in writing or otherwise, sold or assigned to the plaintiff herein, The Simplex Window Company, all or any of their right or title or interest in and to said invention, or such letters patent as might be issued therefor, and they therefore deny the same, all and singular, and leave complainant to make such proof thereof as it may be advised is material.

VI.

They admit that heretofore and on the 31st day of October, 1911, one Arthur C. Soule and one Lewis

A. Larsen, filed in the Patent Office of the United States an application for letters patent for an alleged improvement in windows and that thereafter and on the 9th day of November, 1915, letters patent of the United States for said alleged invention, dated on said last-named date and numbered 1,159,604, were granted, issued and delivered by the Government of the United States to the plaintiff herein, The Simplex Window Company. [11]

## VII.

That these defendants, further answering unto the said bill of complaint, say that as to whether or not ever since the issuance of said two letters patent, plaintiff has been and still is the owner and holder thereof and of all the rights, liberties and privileges thereby granted, these defendants are not informed save by the bill of complaint herein, and that they therefore deny the same, all and singular, and leave complainant to make such proof thereof as it may be advised is material.

## VIII.

These defendants deny that since the issuance of said two letters patent, in the Northern District of California, and without the license or consent of the plaintiff, or at any other time or place, or under any other circumstances whatsoever, these defendants herein have jointly or severally made or used or sold devices containing or embodying the inventions patented in or by said two letters patent, or either of them, or that each of the devices or any device so made or used or sold, or in any manner made or sold by the defendants or either of them, contains

the inventions or invention patented in or by the said two letters patent, or either of them, and in this behalf these defendants allege that heretofore, to wit, on January 6, 1914, one Frederick Hauser, was the original and first inventor of a certain new and *and* useful invention, to wit, an improvement in windows and on that date filed in the Patent Office of the United States an application praying for the issuance of letters patent thereof; that thereafter, to wit, on October 20, 1914, letters patent of the United States for the said invention, dated on said last-named date and numbered 1,114,260, were granted, issued and delivered by the Government of the United States to said Frederick Hauser, one of the defendants above named, whereby there was granted to said defendant, Frederick Hauser, and his successors and assigns, the sole and exclusive right and privilege to make, use and vend the [12] said invention throughout the United States of America and the territories thereof during the period of seventeen (17) years from October 20, 1914, and that a more particular description of the said invention patented in and by said letters patent will fully appear from the said letters patent themselves, which are ready in court to be produced by said defendants.

And in this behalf defendants further allege that during the last year they have been solely engaged in making, using and selling windows containing and embodying the inventions patented in and by said letters patent thus issued to said defendant, Fred-

erick Hauser, neither of which constitutes an infringement upon the said letters patent in said plaintiff's bill of complaint referred to.

### IX.

These defendants deny that by reason of the said alleged or any infringement defendants, or either of them, have realized profits or that plaintiff has suffered damages in any sum whatsoever.

### X.

These defendants deny that they, or either of them, threatened to continue the said or any infringement, and deny that unless restrained therefrom by this Court they will continue the same or any infringement, and deny that plaintiff will thereby or by virtue of any act of these defendants, or any of them, suffer great or irreparable or any injury or damage, for which it has no plain or speedy or adequate remedy at law, or otherwise or at all.

### XI.

These defendants, further answering unto the said bill of complaint, say that neither of the inventions claimed in said letters patent was or is an invention, but were merely the product of mechanical skill [13] .

WHEREFORE, these defendants have fully answered unto the said bill of complaint in so far as they are advised the same is material and necessary to be answered unto, deny that the said complainant is entitled to the relief, or any part thereof, in the said bill of complaint demanded, or any relief whatsoever, prays the same advantage of its aforesaid answer as if it had pleaded and demurred to said

bill of complaint and prays to be hence dismissed with its reasonable costs and charges in this behalf most wrongfully sustained.

HAUSER REVERSIBLE WINDOW  
COMPANY.

By FREDERICK HAUSER.

FRED HAUSER,  
JESSIE HAUSER.

By their Attorney

FRANK R. SWEASEY.

FRANK R. SWEASEY,  
EMIL LIESS.

Solicitors and Counsel for Defendants.

610 Humboldt Bank Building.

State of California,

City and County of San Francisco,—ss.

Frederick Hauser, being first duly sworn, deposes and says: That he is one of the defendants named in the above-entitled action; that he has read the foregoing answer and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters which are therein stated on his information or belief, and as to those matters that he believes it to be true.

FREDERICK HAUSER.

Subscribed and sworn to before me this 21st day of February, 1916.

[Seal]

J. D. BROWN,

Notary Public in and for the City and County of San  
Francisco, State of California. [14]

Copy of the within answer received this 21st day of February, 1916.

JOHN H. MILLER.

Per JOHN R. OBER,

Attorney for Plaintiff.

[Endorsed]: Filed Feb. 23, 1916. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [15]

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*In the Southern Division of the United States District Court for the Northern District of California, Second Division.*

No. 244—IN EQUITY.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY, FRED HAUSER and JESSIE HAUSER,

Defendants.

**Memorandum Opinion.**

JOHN H. MILLER, Esq., for the Plaintiff.

SCRIVNER & HETTMAN, Esqs., for the Defendants.

RUDKIN, District Judge.

A careful examination of the testimony, exhibits and briefs in this case has failed to convince me that the charge of infringement has been made out.

The bill of complaint must, therefore, be dismissed. Let a decree be entered accordingly.



[Endorsed]: Filed March 21, 1917. Walter B. Maling, Clerk. [16]

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At a stated term, to wit, the March term, A. D. 1917, of the Southern Division of the United States District Court for the Northern District of California, Second Division, held at the courtroom in the city and county of San Francisco, on Thursday, the 22d day of March, in the year of our Lord one thousand nine hundred and seventeen. Present: The Honorable FRANK H. RUDKIN, District Judge for the Eastern District of Washington, designated to hold and holding this Court.

No. 244.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY, FRED HAUSER and JESSIE HAUSER,

Defendants.

**Decree.**

This cause coming on to be heard upon the issues raised by defendants' answer and the plaintiff's bill of complaint herein, and certain evidence (both oral and documentary) having been introduced, and said cause having been submitted to the Court for consideration and decision, and said Court having considered the same:

IT IS HEREBY ORDERED, ADJUDGED AND DECREED: That plaintiff take nothing by the said action, and that the said complaint be, and the same is hereby, dismissed;

IT IS FURTHER ORDERED, ADJUDGED AND DECREED: That the said defendants do have and recover of and from the said plaintiff their costs and disbursements in this said suit taxed at \$88.20, and that defendants' have execution therefor.

FRANK H. RUDKIN,  
Judge.

[Endorsed]: Filed and entered March 22d, 1917.  
Walter B. Maling, Clerk. [17]

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*In the United States District Court for the Southern  
Division of the Northern District of California,  
Second Division.*

No. 244.

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COM-  
PANY et al.,  
Defendants.

**Statement of Evidence on Appeal.**

BE IT REMEMBERED that the above-entitled case came on for trial upon the issues framed by the pleadings, on January 29, 1917, in the above-entitled court, the Honorable Frank H. Rudkin presiding, and thereupon the following proceedings were had.



Plaintiff offered in evidence United States letters patent No. 1,159,604, applied for on October 31, 1911, and issued on November 9, 1915, to Simplex Window Company, plaintiff, as the assignee of Arthur C. Soule and Louis A. Larsen, joint inventors, and the same was marked "Plaintiff's Exhibit No. 1, Soule & Larsen Patent."

Plaintiff also offered in evidence United States letters patent No. 1,072,669, issued September 9, 1913, to Simplex Window Company, as the assignee of Arthur C. Soule, the same was marked "Plaintiff's Exhibit No. 2, Soule Patent."

Plaintiff's counsel stated that only claim 1 of the first named patent would be relied upon as being infringed, and only claims 1, 4 and 7 of the second patent would be relied upon as being infringed. [18]

Plaintiff then offered in evidence a model for the purpose of illustrating the first claim of the first patent, and the same was marked "Plaintiff's Exhibit No. 3, Soule & Larsen Model"; also a model of the second patent which was marked "Plaintiff's Exhibit No. 4, Model of Soule Patent"; also a model representing defendant's structure, which was claimed to be an infringement, marked "Plaintiff's Exhibit No. 5, Defendants' Structure"; also another model showing on one side the specific structure of plaintiff's patent and on the other side the specific structure of defendants' device, marked "Plaintiff's Exhibit No. 6, Combined Model."

**Testimony of Baldwin Vale, for Plaintiff.**

BALDWIN VALE was then called as a witness, and after being duly sworn, testified as follows: I am forty years of age and by occupation a patent solicitor, having been engaged in that business for twenty-two years. (Here defendants' counsel admitted that Mr. Vale was a competent expert.) That he had been a manufacturer and a factory superintendent; had examined and understands the mechanical construction of the device shown in "Plaintiff's Exhibit No. 1, Soule & Larsen Patent"; that "Plaintiff's Exhibit No. 3, Soule & Larsen & *Larsen Model*," correctly represented the patent; that the structure of this invention includes a window-frame having grooved side boards on both sides of the frame, in which the slidable members pivoted in the sash slide up and down vertically; then to control the movement of the sash there is the adjuster-arm pivoted in that groove or in line with the groove at the bottom, the other end of the adjustable arm being pivoted to the side of the sash at approximately the middle—on both sides of the sash; that controls the operation of the sash in swinging in and out from the frame; that part (pointing) comes out to a full reverse, from vertically closing the opening to a reverse [19] position, showing the outside of the sash turned inward toward the room; a complete reversal of the usual order; it was found in the operation of this structure that in either stormy or windy weather the sash could not be depended upon to

(Testimony of Baldwin Vale.)

maintain the position that it was fixed in by the operator, and to overcome that a latch was provided which was pivoted to the sash and provided with notches that engaged a stud fixed in the adjuster-arm, so that the sash might be locked in any position that it was placed, against movement by the elements; that latch could or could not be used according to the will of the operator; when it was not to be used, it was swung back parallel with the edge of the sash; on the opposite side is shown a modification in which the latching-arm is pivoted to the sash and engages the adjuster-arm with a frictional sliding shoe, with the same function of locking the sash in any fixed position against the action of the elements; but instead of being a definite and fixed lock, it is a sliding lock to permit the operation of the sash without manipulating the lock; it really is a retarding friction to hold the sash in any position in which it is placed; what holds it in position when the device is used is the carrier-arm that is attached to the side of the sash and engages the adjuster-arm; in the patent it is called "carrier-arms adapted to support the central portion of the sash"; the shorter arm is called an arm connected to the sash, the said arm adapted to engage the carrier-arms and lock the sash in open position; in the practice of the art these arms are generally referred to as "an adjuster-arm"; the long arm connected with the frame and with the sash is the adjuster-arm, and the other one is, for instance, called the carrier-arm.

(Testimony of Baldwin Vale.)

Regarding the second patent and model intended to represent it, marked "Plaintiff's Exhibit No. 4," this model illustrates "Plaintiff's Exhibit Patent No. 2"; the elements [20] involved in the combination being as before, a frame having vertical grooves in each side, a window sash having pivots fixed therein near the upper edge and slidable in the grooves; adjuster-arms marked No. 7 in the patent, slidably pivoted in the frame at the bottom, and having their other ends pivoted to the sides of the sash at approximately the middle; those adjuster-arms are pivoted carrier-arms marked No. 4 in the patent pivoted to the adjuster-arms, and also to the frame to support the weight of the sash and the adjuster-arms; the longer arms are the adjuster-arms, the smaller arm attached to the adjuster-arm and the frame is the carrier-arm; it moves up and down here and swings on a fixed pivot in the frame and a fixed pivot in the adjuster-arm; these adjuster-arms, as their names will indicate, adjust the position of the sash in the frame; the carrier-arm which is pivoted to the adjuster-arm, aids in supporting the weight of the sash and the adjuster-arm and distributing their strain on both sides of the fulcrum where the carrier-arm is joined to the adjuster-arm, so that the tendency of the sash to fall out of the frame is counteracted by the carrier-arm, which throws the strain on the carrier-arm from end to end, or the tensile strain, taking the great strain off the adjuster-arm, which is very important in very heavy sashes, and also contributes to the free and equipoise

(Testimony of Baldwin Vale.)

movement of the same, as the action and reaction are equal, it being necessary, where a second arm is added, that is, where an arm is connected with the adjuster-arm, to introduce a sliding element at some point; in the present model it is introduced at the lower end of the adjuster-arm; the pivots on the lower end of the adjuster-arm slide through the first mentioned grooves of the frame, a metal plate being interposed to take the friction; you can readily see by studying the model that it would be impossible to work the window unless a sliding [21] element was introduced at some point in the combination of the model; otherwise it might be dead tight, one part locking the other part; in the present model, Plaintiff's Exhibit No. 4, the sliding element is specifically located on the pivot at the lower end of the adjuster-arm, where the adjuster-arm engages the frame; in the model of defendants' structure, "Plaintiff's Exhibit No. 5," we have in combination a window frame having side grooves, vertical; we have a pivot member in the upper edge of the sash engaging the groove and pivoted to the sash to permit the vertical movement at the top of the sash, and we have adjuster-arms, as in the prior case, pivoted to the frame at the bottom and at their top pivoted to the side of the sash stiles at approximately the center of the sash; we have in this case adjuster-arms and carrier-arms pivoted to the adjuster-arms, as before, having their upper ends slidably pivoted in the sash to lock the sash in any fixed position; in



(Testimony of Baldwin Vale.)

this case, the sliding element being transferred to the sash from the prior location in the frame; the location is approximately the same, only it would be a little lower down as it passes the frame, but all the elements are there, the adjuster-arm, the carrier-arm and the sliding movement, with the same function, both sashes being reversible within the frame; the ultimate function of this short arm is to lock the sash in any desired position; it is effected by introducing a friction at the sliding pivot of the carrier-arm where it connects with the sash; this model consists of a side plate having a slot through which a pivot extends, and having a resilient spring member interposed between the under side of that plate and the groove of the sash stile, so that the friction is exerted against the side plate to retard the sliding movement of the pivotal connection with the carrier-arm; it accomplishes [22] the object of reversing the sash within the frame, that is, presents the outside of the sash to the inside of the room to facilitate the washing of the glass; it is also arranged so that when completely reversed or in the normal position the sash closes the opening of the window; these adjuster-arms control the movement of the sash and these carrier-arms assist in supporting the weight of the sash, and interpose a retarding movement to lock the sash in any desired position; I would say that they were identical in function and in operation with the plaintiff's model; the only difference at all is the transferring of the sliding element from the

(Testimony of Baldwin Vale.)

frame to the sash, which in nowise affects its operation.

Plaintiff's Exhibit No. 6 is identical in all essentials with the two models which preceded it, Nos. 4 and 5, the frames, sashes, the guides in the frame, and the pivots in the sashes engaging the guides, the adjuster-arms and the carrier-arms, and the sliding movement, are all present; the hardware or mountings in this model are identical with the hardware and mountings in the preceding models, except that on one side is shown what is called a Simplex structure, and on the other side what would be called a Hauser structure, for the purpose of illustrating that the sash will reverse within the opening, that it will close the opening, that it will slide and be guided by the adjuster-arms, that it will be locked in any position by the carrier-arms, and by the frictional sliding element; there being one of each construction on each side of the sash to show that the function and the operation is exactly identical; regarding the suggestion of the court as to a change and what that was due to, that was due to a slight discrepancy, discrepancy in the height of the sash at one side from the other; that was due to the shifting of the sliding element in this case to the sash from the sliding element in the frame on this side; but you can take what is on one side [23] and put it on the other side and get the same effect; you can take the hardware, that includes the adjuster-arm and carrier-arm, and turn them end to end, which has been done, and make the Hauser a Simplex, or

(Testimony of Baldwin Vale.)

the Simplex a Hauser; it is simply an exact reversal of the Hauser, all the elements being present, operating in exactly the same manner and performing the same function.

On cross-examination, witness Vale testified that the word "lock" has a variety of meanings, usually to hold two parts in position; that a door is locked when there is something interposed between the door and the door-jamb to hold the door in position; in a sense there is considerable difference between locking the door and retarding its opening and shutting; if, however, you merely hold the door in a fixed position, retarding might enter there; when you lock it it is in a fixed position in a sense; it might be locked mechanically, or it might be locked by friction; when it is locked it is locked; that is, a very common word in the English language; as to the difference between locking the door or anything and retarding its movement back and forth or up and down, or any other way, the locking of a door and the retarding of a door will call for the interposition of a third element some place in the action of locking, and it would depend on the position of that third element at what position the door would be locked relative to its jamb. If I were going to take out a patent for some device that would retard the motion of movement of a door, for instance, it might be called locking it; I can see an instance where it would be; for instance, the stopping of a train with an air brake, you set the shoes on the side of a rotating axis until they actually lock the wheel; then it is locked; it is being retarded of the



(Testimony of Baldwin Vale.)

tendency to go forward; when it gets to the point of being locked, it is not [24] then in the process of being retarded in its motion, because the locomotive might still be pulling and then it would be retarded in its movement by the locking; in that case I mean the wheels are locked by the brake-shoes; they may pull along, yes, they could slide; that is not the normal condition; I was simply showing you that lock and a retarding movement might be synonymous; they would be synonymous in the instance of which I told you; in that case the wheels are locked and slide, in the other case they are not locked and they revolve in the ordinary way; the action is not necessarily the same, but the whole vehicle is held or retarded in its action; the locking is a question of disposition of the parts to move and it depends upon power; it is a matter of degree; these windows are locked if there is a slight wind; they may not be locked if there is a strong wind (manipulating the model); it is locked now; it is just as much so as the wheel of a locomotive if it is deadlocked; it might be slidably moved, but it is locked (manipulating the model of defendant's device); as I told you, locking is a matter of degree; I cannot lock it, but I can lock its movement against the elements which it is calculated to overcome; I cannot lock it, not that I know of. Claim 1 of the Soule & Larsen patent has in combination with a window frame having grooves therein, the sash adapted to operate in said frame; carrier-arms adapted to support the central portion of the sash, an arm connected to the sash adapted to

(Testimony of Baldwin Vale.)

engage the carrier-arms and lock the sash in an open position; there is no arm here except the carrier-arm; the adjuster-arm is attached to the sash; that is illustrated in the first model Plaintiff's Exhibit No. 3; it has an arm connected to the sash; that is the long arm; said arm is adapted to engage the carrier-arms and lock the sash in an open position; it is in combination with a window frame having grooves therein, a sash adapted to operate [25] in said frame, carrier-arms adapted to support the central portion of the sash; this is the carrier-arm which supports the central portion of the sash; it has an arm connected to the sash, the said arm is adapted to engage the carrier-arms and lock the sash; it is locked but hardly as much as a burglar proof safe; it depends on the degree of locking; if it is locked it is locked; defendant's device, Plaintiff's Exhibit 5 is in combination with a window frame having grooves therein, a sash adapted to operate in said frame, carrier arms adapted to support the central portion of the sash, an arm connected to the sash, the said arm adapted to engage the carrier-arms and lock the sash in open position; I now lock it; if you took that off the window would seek its level; that is a fact; my theory is that this little device here is a locking device for the purpose of locking this window sash at any position that you choose to lock it; still you can open it and shut it when it is locked if you exert sufficient power to overcome it; in ordinary practice you just pull it open and shut it if you are strong enough; the difference between the power re-

(Testimony of Baldwin Vale.)

quired to open the window in the two cases is power enough to overcome the locking element in defendant's structure and power enough to break the lock in plaintiff's structure; you would not break this unless you were very violent; they are identical in function they are not identical in construction; in plaintiff's case it locks absolutely rigidly and holds the sash in its place, while in the other case it does not because you can lift it up and down at the will of the operator; it is only one function, however; in plaintiff's case the operator cannot open it unless he removes this lock; defendant's window stops and holds itself there because it has an equivalent on the other side, but the patent does not say anything about any equivalent on the other side; this model [26] is correct on this side, but you can not demonstrate this action thoroughly on a small model, there is not sufficient weight to overcome it; regarding the model of the Soule patent, Plaintiff's Exhibit No. 4, it has a window comprising a frame, a sash slidably pivoted in said frame, adjuster-arms, which are the long arms attached to the sides of the frame; one end of which being fixedly pivoted at points slightly above the middle of the sash, meaning that the two parts can move relatively to each other; that is the sides of the sash, the side-stiles, the side bars, and the other end slidably pivoted in the frame, that is the lower end of the adjuster-arm which is slidably pivoted in the frame; where you interpose the third element of the carrier-arm it is necessary to interpose a sliding element, so that all the parts in the combination can move rela-

(Testimony of Baldwin Vale.)

tively to each other; if the sliding element was not present one arm would lock the other, taking the sash in combination, and it would be impossible to move the sash that you had to slide; it has carrier-arms, one end of which is fixedly pivoted in the frame and the other end fixedly pivoted to the corresponding adjuster-arm; both of these ends are fixedly pivoted; by that I mean it cannot move from the center of their pivots, the pivots are stationary, in other words. In the defendant's device, Plaintiff's Exhibit 5, there is a window comprising a frame, which I will in this instance interpret to mean the opening; the window would be the opening and the frame would be the woodwork around the opening; it has a sash slidably pivoted in said frame, the pivot being the upper corner of the sash and slidable in the frame; it has carrier-arms one end of which is fixedly pivoted in the frame, and the other end fixedly pivoted to the corresponding adjuster-arm; in this case the carrier-arm becomes the arm that is pivoted to the adjuster-arm and slidable in the sash; in that manner supporting [27] the weight of the sash and the adjuster-arm; in the defendant's structure there is the carrier-arm attached to the adjuster-arm and slidable in the sash; I call that little arm the carrier-arm; it is part of the locking device; that is the only function of it, a locking device; it contributes to the locking; I still say it is a locking device; it is a carrier-arm and a locking device; it is a carrier because it contributes to the support of the device and it is a locking device because it prevents movement; it is no more of

(Testimony of Baldwin Vale.)

a carrier-arm in this case than in the other; it is a carrier-arm and a locking device in both; I find that they both contribute to the locking of the sash in a fixed position; my idea is that it is a locking device in Model No. 3, and in Plaintiff's Exhibit 5 it is a locking device; the long arm is also an adjuster-arm; the other is a carrier-arm; so that the locking device in No. 3 is a carrier-arm No. 5.

Claim 4 of the patent calls for a window comprising a frame, a sash in said frame, an adjuster-arm pivotally secured to one end of the frame and at the other end to said sash, and a carrier-arm pivotally secured at one end to said adjuster-arm; it is pivoted at one end to the adjuster-arm and slidably pivoted at the other end to the sash; I am referring to the Plaintiff's Exhibit No. 5; the only difference in construction between Exhibit No. 4 and Exhibit No. 5 is the pivoting of the carrier-arms to the sash in defendants' structure and the pivoting of the carrier-arm to the frame in plaintiff's structure, both contributing to the same result; in Exhibit No. 4 the carrier-arm is slidably pivoted at the bottom of the frame, whereas in the defendants' structure the carrier-arm is slidably pivoted in the sash; the slide being present in both and the same elements being present in both; the construction is the [28] same practically, but there is a slight difference in arrangement; the structure is the same because we have both structures in one model; the structures are reversible in both cases; all the elements are present, all the functions are present, but it is a different ar-



(Testimony of Baldwin Vale.)

rangement as between claims 4 and 7; the difference in arrangement is that in claim 7 it does not limit the location of the carrier-arm; it reads just as well on defendants' structure as it does on the plaintiff's; according to my idea there is absolutely no difference in the device represented by any of these models; absolutely none; any common mechanic could take one and from that build the other without any invention at all, because all the elements are present and all the functions are present and the mode of operation is practically the same; so far as the elements are concerned, the device described in the Soule & Larsen patent is the same as that described in the Soule patent, the only difference is a difference of arrangement; the two devices that are described in this Soule patent and the Larsen & Soule patent are substantially the same; one introduces friction and the other introduces the pin for locking; the function is the same; in operating Model No. 3 I unlock it by releasing the hook; that is a complete operation; the sash is standing there at a 45-degree angle; you can lift it up a little more or you can let it down or you can shut it. It can be lifted up sufficiently high to be reversed you can reverse the whole business; you can let it down half way when you want to lock it; after it is locked it performs no function at all, but just stands there, dead matter, but there is a reason why it stands there; it is because it is not heavy enough to overcome the friction that is exerted in a small model like this; if it were a large window it would flop right down shut; that is why Soule came into the art, to

(Testimony of Baldwin Vale.)

stop that; there are a number of window-sashes exactly as that is now without the locking device; [29] I know also in addition to that that they were not successful because all that were cited against this patent was what they call casement windows in which there was no weight to overcome; they were automatically locked; the moment you turn this up to a vertical plane you have a different problem entirely; it worked up and down all right, but when there is a strong wind or something of that kind, it would close up, usually of its own weight; consequently this man put on this locking device for the same purpose you would put a lock on the door, that is when you change from the casement to the vertically operating sash.

Afterwards BALDWIN VALE was recalled for further cross-examination and testified as follows:

In giving my testimony regarding the Soule & Larsen patent, I used the word "adjuster-arm" by reason of a request to do that because of a shifting of terms in the consideration of the two patents, and I was asked to give the same name in each instance; my purpose was to give the same name to the same element wherever it occurred in any of the patents or models, and that is the only reason; the words "adjuster" and "carrier" are more or less arbitrary in a patent specification; patent solicitors will call a thing by almost any name; I might not have chosen that word had I been writing the specifications; as to the difference in meaning, that is a matter of the dictionary; I think I know it; a carrier-arm may be an adjuster-arm and an adjuster-arm may be a carrier-

(Testimony of Baldwin Vale.)

arm, because in both instances in these various constructions they perform these functions; the adjuster-arm carries the sash; I would not say that it had to be adjusted before you could carry it, but I should say the other way; if I were going to carry a bucket of water from a spring on my head, I think I would carry it before I adjusted it (witness here points out in the model, [30] Plaintiff's Exhibit 3, the carrier-arm referred in the language of the patent); what he calls the carrier-arm is the adjuster-arm of this patent; it is called the adjuster-arm in the Larsen patent, it carries the sash; yes, carrier-arms adapted to support the sash; it supports the sash; also aids in the adjustment of the sash; the carrier-arm here is to aid in adjusting the sash; in reading the patent through I find that the major portion of the patent specification is given over to a description of just how the co-operating elements of this combination co-operate to manipulate the sash and hold it in positions in which it is fixed, particularly describing the functions performed by what in this patent is called the carrier-arm; on line 40, first column of the patent, you will find: "a further object of our invention is to provide simple and effective means for hanging, operating and controlling the movements of the sashes and to increase the opening space in operation"; there is controlling means described, there is no other controlling means than the friction-shoe and the carrier-arm; the frictional shoe pivots in the sash and the carrier-arm; the patent also says at folio 20,



(Testimony of Baldwin Vale.)

first column on second page, as follows: "Within the side jambs is groove 5, which may be lined with metallic strips or casing (not shown) to improve the wearing efficiency, and adapted to receive therein a slidable friction guide by which the sash 4 is pivotally supported within the window-frame in any position desired." That contributes to the support; it does not say anything about the carrier-arm mentioned, nor does it say anything about the adjustment of the sash; the carrier-arm co-operating with the friction-shoe supports the sash within the window-frame in the desired position; the friction guide consists of a shoe slidable in the grooves in the frame, which the patent states might be armed with metal to increase the frictional efficiency; then interposed between the [31] sash and that shoe is a resilient spring member so as to force the shoe against the frame laterally on both sides; that is described in folio 25 as follows: "The friction-guide just mentioned is shown in detail in Figs. 3, 4 and 5, and in modified form in Figs. 13, 14 and 15. In the first form it comprises a plate, Fig. 6, which may be secured to the outer upper edges of the sash"; I find those things in the model; I cannot find the exact shape of the spring without taking the model to pieces, but the spring is present; the shoe slides in the groove; the elliptic spring has a shoe on it for sliding in the groove integral with the spring; so far as its function is concerned, not the whole sash, but that portion of the sash supports the sash in any position desired; the friction guide system described does not support the sash in any de-

(Testimony of Baldwin Vale.)

sired position without the carrier-arm; it is true as far as the description has gone; if the carrier-arm be taken off, you would simply be having the sash hanging in the frame; it would be supported this far, it would not fall out of the frame but it would not be supported in the desired position; continuing to read from the patent where we left off: "at the pivot point 8 of the spring 7 is an anti-frictional wheel 9, which also enters and slides in the groove 5 and acts together with the spring 7 to slidably secure the sash in position within its casing," means he put on the screw 8, which is really the pivot center, an anti-friction wheel 9, which is rotatable on the pivot 8 and engages the groove so that when the sash is swung outward from the frame the roller 9 rotates on the pivot which is fixed in the sash so as not to exert any frictional rotation of the sash, but merely to exert friction in the vertical rise and fall of the head of the sash; the sentence "with the spring 7 to slidably secure the sash in position within its casing" means that the sliding spring-shoe engages the [32] groove, and prevents the head of the sash from doing as it pleases; it exerts a friction to hold the head of the sash where it may be placed or moved by the operation of the sash; it slidably secured the head of the sash which is in the casing; you find it in the drawings; the drawings are a part of this patent. Regarding the expression, "with the spring 7 to slidably secure the sash in position within its casing" it is hardly necessary to explain; the Court can certainly understand that; anyone with common sense

(Testimony of Baldwin Vale.)

would see what that means; it means that it is slidably secured within the casing by the co-operation of the elements recited; the word "stable" means more or less fixed in character, or standardized, or uniform, or holding a fixed position in the cosmic universe, not necessarily fixed, strong, or solid. The following is a definition of the word given from Webster's Unabridged Dictionary:

"STABLE—a (OF. *estable*, F. *stable*, fr. L. *stabilis*, fr. *stare* to stand. See STAND, v. i.; of Establish).

1. Firmly established; not easily moved, shaken or overthrown; fixed; steadfast; as a stable government.

2. Steady in purpose; constant; firm in resolution; unwavering; as, a man of stable character.

3. Durable; not subject to sudden change; abiding; permanent; as, a stable foundation; a stable position.

4. So placed as to resist forces tending to cause motion; of such structure as to resist distortion or molecular or chemical disturbance—said of any body or substance. Also, strong, or resistant to a breaking force.

5. Designating a governor in which any small change of speed causes the balls to move and reach a new posi-

(Testimony of Baldwin Vale.)

tion of equilibrium corresponding to to the new speed.

SYN.—Steady, abiding, strong, durable. See lasting.

Stable dextrin. See Starch,—s. equilibrium. See equilibrium, 1.

STABLE—v. t. (CF. OF. *establer*, see *Stablish*.)

To make firm or secure, to establish; confirm. OBS.

STABLE—v. i. To stand firm; also, to be established. Obs.” [33]

Folio 120, second column, page 2 of the patent reads as follows: “By the described construction the sash 4 swings entirely to one side of the frame; and by the frictional activity of the friction-guide and the supporting action of the arm 16 the sash is stably fixed in any position desired, without counterweight.” “Easily” is hardly the word; it is designed to overcome a fixed or more or less fixed condition; that is, an atmospheric condition; it is stable against ordinary wind or the power of an ordinary operator to move it; it is not absolutely fixed; it is not absolutely stable; neither is it free to move independently; in other words, the gravity and a reasonable amount of force is overcome; the difference between being stably fixed and locked is just a matter of degree; there would be invention in changing that stably fixed device by putting that so-called locking device on there because it adds to the degree of the locking; if it was firmly fixed it would not be a prac-

(Testimony of Baldwin Vale.)

tical window at any time of its operation; that is the point that he wanted to bring to the mind of anyone who read this specification, showing that he did not use the counter-weights; in other words, he did not have the old-fashioned vertically operated sash, and this was a substitute for the counter-weights; having the Soule patent and the prior art which he may have been charged with before him, I certainly do think that it required more than ordinary mechanical skill to attach such a locking device to a window-frame like that where the sash is already stably fixed in any position desired, because this mounting is applied to very heavy sashes at times, glazed with very heavy plate-glass and with either bronze or heavy mahogany frames and you cannot interpose enough friction in the small groove in the side of the frame to overcome the gravity of that sash without some other element; within [34] the intelligence of people that are supposed to read and interpret these specifications, I think it is true that by reason of this frictional activity and the supporting action of the arm 16 the sash is stably fixed in position in all cases; it is my personal opinion that it would require invention to take that patent, that device with the sash in its stable position, and for any purpose that might or might not arise put the notched arm on there, and my opinion is guided by the fact that the Patent Office saw fit to issue a patent; the notched arm performs no function by itself; you have got to combine it with another element in order to make it lock, the stud, they call it a carrier-arm



(Testimony of Baldwin Vale.)

in this patent; that is where all the confusion comes; that is a necessary physical mechanical thing that is required to co-operate with that notched arm in order to lock it, and without that lug or something to take its place, which we have on the other side, we cannot lock it; in Plaintiff's Exhibit 2, there is decidedly a locking device; it is this carrier-arm in combination with the other elements of a slide and friction; the elements are the adjuster-arm and the carrier-arm on the slide, and the frictional contact at the top of the sash; the whole thing is a lock; it is the equivalent of the device in the other patent, not any specific construction; there is no notched arm locking device in the second patent as it is not required because there are other devices to take its place; in the Soule & Larsen patent under ordinary stresses the sash is in stable equilibrium for practical purposes; it is a matter of weight; the ordinary window sashes in general use under ordinary circumstances show the sash in stable equilibrium; but it depends upon the pressure exerted against it by wind and other elements; so far as just the gravity of the sash is concerned, it is, but it is supposed to do a great deal more than merely hold itself; referring to [35] folio 25 of the Soule Patent, column 1, page 1, the plate is automatically adjusted in the frame, said plate having means for automatically adjusting its position on the frame; in setting up the frame for the first time, you hang the other elements and close your sash and find out where your plate belongs and then set up the other screws and



(Testimony of Baldwin Vale.)

then the sash is ready as long as you live; it is the plate which is automatically adjusted; referring to folio 80, column 2, page 1 of the patent, the adjuster-arms 7, or those long arms, one end of the arm is pivotally attached by pivot 9 to wearing plates 8, which are secured to the sash and the other ends are pivoted by pivot 11 to the sliding fixtures 12 at the bottom; that is at the bottom of the adjuster-arm where it engages the frame; the sliding fixtures are a metal piece shown to guide the operation of the lower end of the adjuster-arms; it is present here in the shape of a channel having overhanging flanges; the carrier-arm 4 carries the weight of the sash and the adjuster-arm; the carrier of the defendants' device is not curved; the term "stable equilibrium" means it will stay where you put it; it means something different from having the sash in a fixed position, a difference in the functional result of this combination from the functional result of the Soule-Larsen patent; they both stand in a fixed position, but this one stands in a fixed position in an improved manner; this is an improved way of holding it in fixed equilibrium; in the Soule-Larsen patent it is said "By the frictional activity of the friction-guide and the supporting action of the arm 16, the sash is stably fixed in any desired position"—these expressions mean the same thing; I should say the words speak for themselves; the equilibrium that is called for in the Soule patent is under certain circumstances greater [36] than the fixed position required in the Soule & Larsen patent; those circum-

(Testimony of Baldwin Vale.)

stances are that in the Soule & Larsen construction it is possible to lock the sash in such manner that it cannot be unlocked, and it is possible in this position to lock it in a position in which it can be moved and still remain locked; it is a more stable structure than the Soule patent; it retains its position in a superior manner over the other structure; I get at the fact that the equilibrium is greater or more powerful from practical knowledge that this type of window has come into general use, some 150,000 of them being used; I happen to have that knowledge, and I cannot divorce it from my mind, but all that is comprehended in the patent; I do not think that the stable equilibrium mentioned in the Soule patent means something more than the phrase "the frictional activity of the friction-guide and the supporting action of the arm 16, the sash is stably fixed—" is greater than the words "stably fixed." They may mean the same thing, but one device may accomplish it more perfectly than the other; the object is the same in both inventions; the object is the same in both inventions, but is arrived at by different means; it is not an endeavor to lock the window against burglars; it is desired to hold the sash in the desired position open, not closed; the object in both windows is not to lock them against violence.

**Testimony of Arthur C. Soule, for Plaintiff.**

The witness, ARTHUR C. SOULE, being called as a witness, testified that he is the same A. C. Soule mentioned as one of the inventors; that he is the manager of the Simplex Window Company, a cor-

(Testimony of Arthur C. Soule.)

poration; that company was engaged in the manufacture and sale of Simplex windows, a name given to the windows on which these patents were taken; the Simplex Window Company has put its invention on the market throughout the [37] Coast and throughout the Eastern States; they have been on the market since the fall of 1911; the first building they were put into was on Golden Gate Avenue near Devisadero Street in the fall of 1911; the extent of the sales of these patented windows by this company is in the neighborhood of 150,000 windows; it has spread over Washington, Oregon, California, Arizona, Texas, New York, Georgia, Florida, Louisiana, Illinois, Minnesota, Ohio; our agent in the East, which is the Pittsburg Plate Glass Company, has twenty-seven warehouses distributed throughout the United States, east of the Rocky Mountains; these windows which we have sold have been marked "Patented September 9, 1912," I think it was 1912 or 1913, whatever the date of the patent is; we marked the numbers of both patents on the windows; at the time I got up this device hinged windows similar to casements and windows similar to double hanging windows counterbalanced with weights and cords and various pivoted windows were on the market; but there were defects in the pivoted windows; I have seen on the market the Hauser windows so called by the defendants in this case; I understand their mechanical construction; the sale of the Hauser windows has not been with our con-

(Testimony of Arthur C. Soule.)

sent; defendants have been notified to desist from infringement, but they have not complied with the request; Plaintiff's Exhibit No. 5 substantially represents the windows that have been made and sold by the defendants in this case in all of its parts and functions.

Afterwards the witness, A. C. SOULE, was recalled for further examination and testified as follows:

The Larsen & Soule device was the first one that I put on the market; I sold them to the Merchants Apartments on Golden Gate Avenue, at No. 226 Judah Street, and several other [38] places that I cannot recall; I could make you a list of them; I made that invention in the beginning of 1910; I made the other invention in the beginning of 1911; I have not named all the places where I sold the Soule & Larsen device; I cannot recall all the places where I sold them; I also sold them in the Merchants Apartments on Golden Gate Ave., near Divisadero Street; 226 Judah Street, two residences in Piedmont, in Oakland, a building on Geary Street; an apartment on Sacramento Street near Jones; that is all I can recall at the present time; the Soule device was sold to the Standard Oil Building, Lankershim Hotel, all of the schoolhouses in Oakland, all of the schoolhouses in Fresno that were recently built, in the last two and a half years; two apartment houses on Sutter Street near Jones, and Cartwright Apartment House, the Flatiron Building. My inventive faculty led me to make the invention described in

(Testimony of Arthur C. Soule.)

the Soule-Larsen patent; I was working on the windows for two years previous to this and took out several patents; I have sold more of the Soule devices than the Soule-Larsen devices; I made the invention described in the Soule-Larsen Exhibit No. 2 at San Francisco; I had a shop; I had two or three employees; had one man named E. Fashman, and I had a partner named Larsen, L. A. Larsen, and I had a workman named Arthur Brown; Mr. Larsen collaborated with me in the exercise of my inventive faculty in devising the Soule-Larsen device; yes, I believe he had inventive faculty; he collaborated with me and assisted in suggestions along the line; he suggested the means for attaching the lower arm into the groove there by an additional fixture that preceded it; we worked together; it would be pretty hard to recall every little item that occurred after seven years; it was my inventive skill which devised the main portion of it; I conceived the carrier-arm and the frictional spring, and its general construction; then we took [39] it up, being partners together and worked together and co-operated, and therefore called it a joint invention; I could not remember who suggested the notched arm; it may have been Mr. Larsen, and it may have been myself; it is hard to recall all the things that would occur in a conversation or in a suggestion; I just mentioned one point which Mr. Larsen did which constituted an inventive act, that is where it engages the groove and where it is attached to the framework in the groove; he suggested an additional fixture there into which



(Testimony of Arthur C. Soule.)

the arm went when it was fastened and which you will find there at the bottom of the arm; there is a fixture that comes in to hold this (illustrating); he suggested that; it is shown in the drawings; you will find it there in the drawings; it would be in a way recognized in claim 1, which you have just mentioned, in the carrier-arms adapted to support the central portion of the sash; the adaptation of that would be its connection with the bottom of the groove, pivotally, and then the attachment to the sash, that would be where it would come in; I had not built any of these windows before Mr. Larsen made that suggestion.

Thereupon plaintiff rested, and defendants introduced in evidence U. S. letters patent No. 509,521, issued November 28, 1893, known as the Frotscher patent, and the same was duly admitted in evidence.

Defendants also offered in evidence a large model marked Defendants' Exhibit "C," being a model of the defendants' device; also another large model marked Defendants' Exhibit "D"; also another model marked Defendants' Exhibit "E," as a representative of the Soule-Larsen patent; also another model marked Defendants' Exhibit "F," which is a representation of the Soule patent; also another model marked Defendants' Exhibit "G," being a simplified form of defendants' [40] device called for by his patent; also another model marked Defendants' Exhibit "H," being a model of the defendants' Exhibit "B," known as the Frotscher Patent;



(Testimony of Frederick Hauser.)

also another model marked Defendants' Exhibit "I," being a model fashioned after "Plaintiff's Exhibit 2," the Soule Patent, and shows the prior art.

**Testimony of Frederick Hauser, in His Own Behalf.**

Thereupon FREDERICK HAUSER, one of the defendants, was called as a witness and testified as follows:

I was born in Germany, and have lived in this country about 37 years; my general business is that of contractor and builder; my attention was called to the window art about 50 years ago; ever since then I have been engaged in the business of constructing windows and had to help my father in the shop when I was a little boy and have been at it most all the time since I have been in the United States; I made a life study of windows; and especially of reversible windows; eight years ago I traveled over Europe and went to every Exposition and looked at the state of windows and came back here to this country again and visited the biggest cities here studying windows, and then I came back here again and made a life study of this article; have examined books and sundry articles, and all the literature on the subject, all that I could find; I am familiar with pretty near every one of the window-frames in use; I used to know Mr. Larsen, but never could say that I knew Mr. Soule; I knew Larsen since the time I started in this business, when he came to my office two years or two and a half years ago; I never was familiar with the Soule & Larsen patent since the time they

(Testimony of Frederick Hauser.)

had the patent issue and they notified me that they had a patent; I have read it lately, and I think I understand it; I have not seen any of the devices which were made under that patent; I tried to find one, but could not find one; [41] I do not know of any on the market here in town; Defendants' Exhibit "C" is a device made under my patent; I made that in accordance with my patent; the top part of it; the lower part of it is a later patent, a patent pending which has been allowed; I made them both; I made this one since I applied for a patent; that is about pretty near two years since I applied; I made the top one right at the time when I had my patent papers, my certified patent copy; in my device I had a carrier-arm, this arm here (pointing); the lower part is a carrier-arm; I call it "arm" in my specification; it only calls for an arm; I never gave it the name of "carrier-arm"; it is the arm which carries the sash; its function is to carry the sash; I have no frictional guide at the top end; I have another little device up at the top there, which I call in my specification a link; it is attached to another part where a spring is on and it guides that spring; it does not support the sash in any way that I can see; it operates the same as this Defendants' Exhibit "G," exactly the same; friction is there; that holds the sash; that keeps the sash in position, in a retarded position when you move it up and down or when you move it; that is all; it is always ready to work, so far as I understand it is always ready to work; it is not locked.

(Testimony of Frederick Hauser.)

Regarding Defendants' Exhibit "B" (the Frot-scher patent, No. 509,521, and the model thereof, Plaintiff's Exhibit "H"), there is a frame, and in that frame is a sash which slides up and down on counter-weights, and at the same time it is reversible so that they can clean it from the inside; to do that it works this way (indicating) and they pull it out, and they have got a little arm on here with notches in that, and they hook these notches in here and put the sash in a sloping position, and it stands there; it cannot move any more; the specifications say you have to release that, unlock it if you [42] want to use it and place it further up; if you want you can move it all around; that is the construction of the thing; the little arm is a locking device; comparing this Frotscher patent with the model of the Soule & Larsen patent, they have got this rope and counter-weight; that forms the carrier-arms; it carries the sash; it holds the sash up; all that is necessary is a counter-weight according to the way I just illustrated corresponds to a retarding device; when the sash is this way you can retard it just as you would do this with a spring; there is a weight which balances the window in the retarding place; in the Soule & Larsen device they have a friction which corresponds to that weight; there is a friction spring that presses against the sash and holds it up where you put it; in the matter of an arm for locking, I find exactly the same thing here; no difference in it; it is an arm with a notch and a projection or lug upon which it locks; when you put this arm on this Frot-

(Testimony of Frederick Hauser.)

scher model upon the projecting lug it is locked in position; it is locked fixedly; in that way it corresponds to the Soule & Larsen device, it is exactly for the same purpose.

Defendants' Exhibit "I" is a window with a sash in it and represents the way it can be reversed and opened with the same device on one side, the Soule, which works the same in the windows; in other words, I have an appliance there which has the same parts as the Soule patent; this particular arm here is called the adjuster-arm; the adjuster-arm is the long one; the other arm is the hanger-arm or carrier-arm; the adjuster-arm is fixed to the sash solid on one side, and a little above the middle on plates; the adjuster-arm is slidable down on the bottom in some grooves; it slides up and down; this is the idea that I had since long years that I saw this same idea practically in operation, so far as I know about twenty-five years; it is used for the most part on awnings, on the frames, [43] on every awning pretty near in San Francisco here; on this side I have shown various arms which are in circular forms or rods; I find them on awnings in that way on a bigger scale; on the other side I have shown them as flat bars or arms, and they are adapted to show how they can be applied to the Soule patent; taking this arm here it is called the aduster-arm, and its function is to adjust the window, adjust the sash; it does so by raising the sash up; the function of this arm is the same function as the other side, an adjuster-arm, as to its extending above the sash, it

(Testimony of Frederick Hauser.)

could not be on here, but then we have to curve this end; it makes no difference in operation whether it is fastened above the sash or not; its function is a carrier-arm or hanger-arm; it has the same function just the same as the carrier-arm on the other side; we are making these straight along now; putting them in use; have been doing so about twenty years; there is no function or result that this will accomplish that the lower one does not; it is exactly the same; there are thousands of them in use here in town; I am familiar with Defendant's Exhibit "E," the model of the Soule & Larsen patent; have seen none of them in use here; never saw any windows like that but I understand it; I am familiar with Defendants' Exhibit "G," which shows a portion of a model of defendants' Hauser patent; I can not take this arm off the plaintiff's and put it on mine and make it perform the same service; it won't lock by itself; by itself it is not a locking device; it would have to be brought into play by another element; a lug on the arm—a little lock; in my device what holds the sash in its position is the spring down here connected to this plate; it is a guide spring, friction by spring. In Defendants' Exhibit "C" it is operated by a pressure spring; I found out through my experience that [44] so long as I bring a friction up here near to the center point the more results I get, and that is why I brought this as far down as possible from there, on account of the leverage; so from my experience and study I came to the conclusion that a little spring half as strong as this had



(Testimony of Frederick Hauser.)

more results than up there; by "up there" I mean like the construction of the plaintiff's device; I came to the conclusion the nearer I got to that point the more result I got, and I brought a friction spring in here right on the pivot, and I found out it gave the best results so far, without anything else; the spring device I speak of is right here over on the other side of the pivot; to show it you would have to take the plate off; this is the one I spoke of, having a patent allowed for; I got the patent; I applied for that patent two years ago in January, and since that time, afterwards, I thought I would not take it out on account I had a lawsuit against me, and I thought I had better not spend any more money on it; it has been allowed; yes, I got the allowance for it in December, 1916; it simply has a carrier-arm and a spring at the end of the carrier-arm on the sash; I have two patents and this exhibit here represents my two patents; I made quite a good many of these single-arm devices, considerable of them; some are in use here in town; most of them are in use on the outside; I furnished about four of five schoolhouses with that same device, just like that; I have no complaint so far.

In the Defendants' Exhibit "F," showing the Soule patent, the long arm is the adjuster-arm and the other arm is the carrier-arm; I can take that carrier-arm and fasten it to the sash instead of to the side of the frame, but it would not operate; it is impossible on account of it would stop the function of the sash; my arm is attached to the sash; this [45]



(Testimony of Frederick Hauser.)

one is attached to the frame, and if I undertook to put it on the sash it would not operate at all; there is no interchangeability of parts between the two devices, not for working; if you were to unscrew this carrier-arm and put it in a slide down here, it would be my machine but I would have to make it all over, make my window sash and frame.

On cross-examination, the witness Hauser testified as follows: In this model, exhibit "I," on one side I have put in a mechanism that has been in use for many years in lifting and lowering an awning; I never manufactured any of these awning fixtures myself; no, I got them manufactured; I have sold them; I never used one of these awning fixtures for opening and closing and reversing one of these windows; I merely had this model here to illustrate how that apparatus is used in an awning and what I had to compare this with; I intend now to make windows containing this awning fixture like the one I have got shown on the model; I found out in my experience that I could simplify the thing and get a better result out of my own construction instead of taking an old one; I wanted to use the one which I found the best; I am now using my own invention. In regard to this model of the Frotscher patent, (Defendant's Exhibit "B") I never have made any windows like that; I didn't want to make them like that; they are useless; I found out they are useless, with windows made that way, so I got up my own idea which is a useful device; the other one is not a practical or a useful device; I say it is not a useful device; no,

(Testimony of Frederick Hauser.)

you can not use it, but I would like to explain it a little better; you can use it, but it is, in other words, not practicable, not a practicable device; they do not use it at all any more; they used to use it but they hardly don't use it any more, not even on step-ladders; when I got up my [46] patent for my invention as to whether it required any invention or inventive faculty on my part, or whether or not any mechanic skilled in the art could have gotten up the device, that is a hard question to answer; I studied this thing and came to it in practice; I do not know what another man does; if a man rests on a thing he got up and gives it out, and another man comes and thinks it over and makes it better, he is entitled to it, if he thinks he can get anything better, that is after studying the thing further; I surely think my device is a good deal better than the old awning device; I am sure it is a good deal better than this old Frotscher device; I am sure it is; positive; as to the two devices on this big model here, the top or the lower device, I consider them both just as well; in the lower device you have a frictional device for holding the window in any position; and on the upper one I have a frictional device in a different shape, and that frictional spring tends to hold the window in position when you open it up; something of that kind is absolutely necessary in a practical window when you want to hold it in position; by it you can reverse your window and do to it whatever you want; there is no reason I know of why that awning device could not be applied to a window; they

(Testimony of Frederick Hauser.)

manufacture them that way and get the same result out of it as the other one; it had been used on windows, on window awnings, at the same time you could apply it to a sash and operate the sash; it has the same function as this; you can do it with this device; that is why I brought it as an exhibit here; I claim that it is exactly the same movement, the same function as that on this side, so far as I understand anything; by window awning I understand the outside of the window to bring a shade down. [47]

**Testimony of Baldwin Vale, for Plaintiff (In Rebuttal).**

BALDWIN VALE was then called in rebuttal and testified as follows:

I am familiar with what is ordinarily known and has been referred to here as an awning mechanism for raising and lowering awnings; I have been familiar with them for at least twenty years; its function is simply to raise and lower the awning; Defendants' Exhibit "I," which has been offered in evidence as representing the awning structure, I would say it is an unfair representation of the awning structure; in the first place the function of the slide in the awning support is to get the support which in this instance corresponds to the carrier-arm; on a horizontal, so that it will not strike the heads of persons passing under the awning, and any one who has ever watched the operation of an awning will notice that practically the whole canvass forming the awning will be lowered to position before this carrier-arm will suddenly flop out to a

(Testimony of Baldwin Vale.)

horizontal position, and it remains there until the awning is rewound practically to its whole extent; and then that arm will drop down again; it does not go through any synchronous movement in raising and lowering the awning; this shows a very slight movement, whereas the awning movement shows a movement from 45 to 90, or horizontal; assuming that a window was made containing the so-called awning fixtures of this model on both sides of the sash, it would not be a practically operative device for the purpose for which these windows are used, namely, to reverse them, to hold them in position at any desired point, because the moment this carrier-arm took a horizontal position, the window would become unmanageable; I doubt if it ever could be put back to its normal position without individual manipulation of its various elements; they would not co-ordinate properly; there is no frictional or other stop in this model (Defendants' Exhibit "I"); nothing whatsoever; this sash flops at will in the frame; looking [48] at the other side of the model which represents the Soule patent, I do not consider that mechanism is a fair representation of the Soule patent because they have changed the centers of leverage, and anyone who knows anything about leverage knows that fulcrum points and centers are very important; they have moved the position of the pivot where the adjuster-arm joins the sash, a great distance beyond the outside plane of the sash, not in the stile of the sash as the patent calls for and as the structure shows, but far beyond

(Testimony of Baldwin Vale.)

it; and then they have moved the lower pivot of the carrier-arm from its point in alignment with the groove of the frame, where it is called for in the patent and shown in the structure, out, you might say, to the extreme outer edge of the window-frame, exposing all the mechanism and throwing the window entirely out of balance, killing the active and reactive effect of the fulcrum points where the carrier-arm joins the adjuster-arm, where the action is not equal on both centers; in other words, the action is not equal to the reaction in this mounting as put in this Defendants' Exhibit "I"; I think it is unfair. Now, regarding Mr. Hauser's testimony as to the superiority of the bottom window in this model Exhibit "C," and the reasons given for it, Mr. Hauser said, if I quote him correctly, the nearer he got his friction to the pivotal connection where the adjuster-arm joined the sash, the greater effect that he got; but in the bottom there is only one arm so we cannot go wrong on that; the arm that is connected to the sash of the frame; he claimed that if he got his friction near the connecting point between that arm and the sash that he got a greater retarding or locking effect; I do not agree with him in that because the leverage is greater the further you get away from the fulcrum, and I think a slight pressure at a distance from the fulcrum, which in the Soule patent is on the pivot on the sash that engages the frame; that a pound of pressure there is worth several pounds of pressure at the [49] fulcrum point, because the movement is greater, and it



(Testimony of Baldwin Vale.)

is well known that the further you get out on the end of a long lever the more power you have.

On cross-examination, the witness testified that he did not deny Mr. Hauser's statement that he had made and put in use many of the windows represented by his model Exhibit "C," but he does not think it accords with accepted mechanical practice. My explanation simply amounts to, the view that the public buys something is no evidence of merit or superiority of that article; it is some evidence perhaps that it has not been severely tested. You have all the elements here in this model; you have the adjuster-arm and the carrier-arm in that model you have not got all the patentable, combinative elements; the arrangement forms a part of the invention; you have a window represented there and a sash slidably pivoted in said frame, but you have not adjuster-arms, one end of which is fixedly pivoted at points slightly above the middle of the sash stiles; you have added another element that is not present in that claim; it is not pivoted slightly above the center; I would not say it is pivoted to the sash at all; it is pivoted to a bracket; you bet it makes a difference in the operation and I went to considerable length to tell you why; if you were to take this out here and pivot it right in here, it would not work, because it would jamb; with these centers in the wrong place you can not now reverse the sash like you claim it can be done; it is all garbled up to fit conditions, it is a good enough



(Testimony of Baldwin Vale.)

model; it is not what you have left out that I am complaining of; it is what you put in; you have put in an extra element on this bracket and you have moved all the centers out of alignment; moving elements change the feature of the sash and you can not control it and can not reverse it; Plaintiff's Exhibit 4 is a correct model of the Soule device; [50] the drawings and specifications call for a carrier-arm with a curve in it, a carrier-arm which will be bent so that the window will properly close; in this model of the old form of awning device which we have here, it would be absolutely impossible by bending the iron of that according to your specifications in the Soule patent to make the window work in the same way, because you have moved all the centers; here is a little model, less than quarter size; you have moved the pivot on the sash stile with its supporting-arm 2 inches; that would amount to eight inches in a full-sized model; you have moved the center of the pivot on the adjuster-arm at the junction with the frame 2 inches; that would be 8 inches more with a full-sized sash; you would have a nice time operating it with those centers 8 inches off the center; if you put it where it belongs it would work; the arms and the way it hangs and all that in this awning device is not in accordance with the specification in the Soule patent, absolutely no; not considering the centers at all and simply taking each part of this combination we have here in the model the carrier-arm attached to the frame and to the adjuster-arm, but I will not admit that you have the

(Testimony of Baldwin Vale.)

adjuster-arm slidably pivoted in the frame and attached at a point slidably above the center of the stile in the sash; it is attached on a big projection beyond the sash, not a little one; taking this combination here of the adjuster-arm and the carrier-arm, that could be used if attached to a window, such as set forth in the Soule patent and could be made to work by changing the centers, oh, yes, if you wanted to reconstruct and rearrange it; simply putting the centers further over on the frame it could be made to work if you changed it, it would be made to work, I could make it work and any ordinary mechanic could make it work; by taking this carrier-arm and this adjuster-arm and attaching it to a window and changing the centers over, [51] but not changing the mechanism or the construction in any way, just whether or not it will work all depends on how much you change it; I want to say supplemental to what I have already said regarding the joining of the adjuster-arm to the sash, in the first place there is no pivot in an awning between the adjuster-arm and the awning; in the second place, there is no bracket, because the adjuster-arm is fixed solid to the board that they tack the end of the canvas to; and I want to deny that this model on either side represents anything in suit here that I have been examined on; this is all responsive to the question I was asked, where I was asked to compare this and state whether it was a true representation of an awning fixture; Plaintiffs' Exhibit Patent No. 4 is a true representation of the Soule Patent, Exhibit No. 2,

(Testimony of Baldwin Vale.)

because there is no significant deviation there; there is no fixed point at which that pivot pin shall be joined to the adjuster-arm; there is no fixed point at which that pivot shall be joined to the frame; if you make that arm shorter, you will join it at 10, nearer to the frame, and at 6, closer to the lower end of the adjuster-arm; the curve of the arm is not very significant, it absolutely is not; it is simply a question of esthetic value; it has no mechanism value whatever; it is a question as to whether your arm shall hang parallel with the line of that frame or be at a slight angle; it does not matter if it is at a slight angle in this, if you had changed the points of attachment down below here it would not work on a window just as well as any other apparatus because you have added not only a physical mechanical element in this bracket, but you have moved the thing all out of balance and symmetry and exposed all the hardware, whereas, it is all undisclosed in the patent; you can take the adjuster-arm and the carrier-arm from this awning device and make it work on a window and have it all enclosed so as not to expose it, and you have done it with a fair measure of [52] success in your model; I do not think it can be done without that projection; I said a little while ago, if you put it back to where it belongs it could be done, but it is all out of place the way you have it in your model; in regard to the assertion that the patent says that the curved arm is important, I do not care what it says, it works in and out; I am not interested in his bending; I claim that the bending of that arm

(Testimony of Baldwin Vale.)

is absolutely nonessential to the working of that device.

**Testimony of Frederick Hauser, Recalled in His Own Behalf.**

FREDERICK HAUSER was then called for further examination by his counsel, and stated that he had heard what the witness Baldwin Vale had just said, and that the witness' explanation was this, one arm here, the specification shows a long arm just as well, much longer than it shows on this one here; it is not a true representation how that works; if I put it down here or there I make it work; Mr. Vale said it could not be worked as I make it, but I can make it work in a perfectly good way; merely changing the point of connection or substituting a long arm for a short one would not require any invention, not at all, but putting the sash here, absolutely different, as called for in the specification, the curve we have in it in order to close the sash in the position; the curve is on the outside in their arm; in mine it shows exactly the same condition they have got in their specification; when they put it in first it was completely exposed to the outside; they make that curve on it so that the window comes back into place; if they expose that arm completely they put that curve on; now lately they come and construct this in a frame; it is just as easy and just as well to make a little smaller arm and make it down here; in the model it shows an arm from here to there; now they have changed that around; there is everything in this model according to their [53]

(Testimony of Frederick Hauser.)

specifications; according to that curved arm, I thought I would just represent this and use that curve in this place; I thought it was necessary to make this straight; so I made this straight; if I were to curve that I would take that point in there and it works no question; we get awnings where that is not solid, where it is loosely pivoted; we have got some that are solid; and we have some that are loose; that is all I have to say about it.

**Testimony of Fred Behnke, for Defendants.**

FRED BEHNKE, called as a witness, testified that his place of business was at 1284 Mission Street; and consisted of awnings; had been in the business for thirty years; that he had all kinds of awnings and sold them to the retail trade; that Defendant's Exhibit "I" on one side is a fair representation of the mechanism he used in raising and lowering an awning; this lighter-rod will hold the awning up like it will hold a window; this is a French patent on awnings made in Paris, it ran out 17 years ago, and since 17 years we have made them all, every one, in San Francisco; this is the adjuster-arm; the upper-arm is the one that holds the weight; this arm should be horizontal; this would be the lever-bar, what we call the lever-bar, which works just like it works here, this one works in and the other one works out; by turning this around, and having this straight out, and having this arm here, this can be regulated for any building; buildings are not the same types, and sometimes it will be 8 feet, 10 feet, or 9 feet; sometimes we make them 5, or 6, or 7, or 10 feet, whatever it may.



(Testimony of Fred Behnke.)

be; that is just a matter of the way the building is constructed; on the other side of this model we find what appear to be flat arms used instead of the round; we used years ago flat arms, but in latest years we have used cold rolled steel; flat arms were lower a good deal, than cold rolled steel, and that is the reason we used the flat arms; years ago we used to build flat arms because they were cheaper than [54] cold rolled steel; but it is not so now any more; we used cold rolled steel on awnings.

On cross-examination the witness testified as follows:

Referring to defendant's model of the awning model, we call that long arm the out bar; in the awnings as we make them they come out straight; as to whether or not they come out in a vertical position like they are here, that depends a good deal; some buildings have them standing this way, and some have them straight down, and some have them four feet below that; I do not know who made this model; I don't know who did; as to why the maker of the model made that rod standing up there instead of coming out straight like they do in awnings, this is for a window and naturally you could not use it for an awning; then this would stand straight; it would come further down; it would come from here to here, more straight, it would have more balance there; of course I do not know anything about this; I can only say about what this arm would represent; this arm could be made so that it would work just the same by making this lever longer; in the awning structure we

(Testimony of Fred Behnke.)

extend that arm out straight, when you go to put it on this model for a window and whether you have to change it into the other position, that I do not know anything about, the window, I could not argue on the window question; the window I don't know anything about; I am not versed in window frames; I do not know about window-frames; in awnings I have been thirty years engaged; windows I don't know anything about; as to whether or not this slide on the model is higher or shorter than in an awning, some awnings would be 6 feet out and some 7 feet and some 8 and some 9, whatever it is; where the building is lower, the slide would be longer; where the building is higher the slide would be shorter; as to whether or not in order to change over the entire structure and apply it to a window, and whether you would have to change the construction [55] and arrangement considerably, I do not know anything about it; I cannot say; where a window was bigger you would have to change it, and where a window was smaller you would have to change it, I presume, like an awning; this construction here is in the exact form that is shown on awnings, but the arm is just the same; in the awning the arrangement of these parts is exactly the same as shown in this model; they are not in the same position; this stands up and down; the other one stands more straight; as to whether there is a different arrangement in these two cases I would not say; there is a lever up there; there is the slide; there are stops and everything, exactly like an

(Testimony of Fred Behnke.)

awning; they are not arranged in a different way in an awning from what they are in this model they are arranged exactly the same way; I said a moment ago that in the awning the rod came out straight, it could hang down or come higher up with an angle of 45 degrees; in some buildings they want an awning at 45 degrees, and some want them straight; it just depends on what they want; nobody wants them to come up straight like in this model, vertical; no, I have not made any like that; in the ones I have made they are arranged different but they were never made any different; they were fastened together the way this is fastened here; it should be fastened more over the middle; that is the way it should be fastened; off toward the end, but the awning rod will run up the same exactly as this; if the awning were down here and the awning came up, this frame would come up exactly like this comes up against the building; if the awning was here, it would stand like this stands now; this is the awning up; if the awning comes down this comes down; in the case of an awning what we want to do is to fold it up like this; the object of having that fixture on the awning is to roll it up; the object is to roll it down and get it in position and fold it up and get it in position; if you roll the awning [56] up it is up on the building, and if you lower your awning down it stands on an angle.

The defendants offered in evidence certified copy of file-wrapper contents of the Soule and Larsen Patent, No. 1,159,604, granted November 9, 1915,

which was duly marked by the clerk as one of defendant's exhibits.

Defendants also offered in evidence the patent issued to Frederick Hauser, dated October 20, 1914, No. 1,114,260.

The foregoing constitutes the substance of all the evidence offered at the trial.

Approved:

FRANK H. RUDKIN,  
Judge.

**Stipulation Re Statement of Evidence.**

It is hereby stipulated and agreed by and between the parties to the above-entitled suit that the foregoing statement constitutes all of the evidence which was offered at the trial by the respective parties, and is a full, true, and correct statement thereof in narrative form.

It is also stipulated and agreed that the paper exhibits referred to in the above statement need not be copied herein, but that the said exhibits including the said file wrapper contents of the Soule and Larsen patent, together with all the physical exhibits may be transmitted to the Circuit Court of Appeals for the Ninth Circuit, and here used by either of the parties upon the appeal of the case.

May 8, 1917.

JOHN H. MILLER,  
Attorney for Plaintiff.

SCRIVNER & HETTMAN,  
Attorneys for Defendants. [57]

Approved:

FRANK H. RUDKIN,  
Judge.

[Endorsed]: Filed May 17, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [58]

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*In the Southern Division of the District Court of  
the United States, in and for the Northern Dis-  
trict of California, Second Division.*

No. 244—IN EQUITY.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,

Defendants.

**Plaintiff's Petition for an Order Allowing an  
Appeal.**

The Simplex Window Company, plaintiff in the above-entitled suit, feeling itself aggrieved by the final decree heretofore made and entered in the above case on March 22, 1917, wherein and whereby it was ordered, adjudged and decreed that the plaintiff take nothing by its said action and that the said complaint be dismissed, and that defendants do have and recover of and from said plaintiff their costs and disbursements in said suit taxed at \$88.20, and the defendants have execution therefor, comes now into court by its counsel and prays the Court for an order allowing the said plaintiff to prosecute an appeal from the said final decree to the Honorable United States Circuit Court of Appeals for the Ninth Circuit, under and according to the laws of the United



States in that behalf made and provided, and that an order be made fixing the amount of security which the said plaintiff shall give and furnish upon said appeal, and that upon said security being given all further proceedings in this Court and the issuance of execution be suspended and stayed until the final determination of said appeal by the said United States Circuit Court of Appeals.

And your petitioner will ever pray, etc.

JOHN H. MILLER,

Solicitor and Counsel for Plaintiff. [59]

Service of the within petition for an order allowing appeal by receipt of copy admitted this 17th day of April, A. D. 1917.

SCRIVNER & HETTMAN,

For Defendants.

[Endorsed]: Filed Apr. 19, 1917. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [60]

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*In the Southern Division of the District Court of the United States, in and for the Northern District of California, Second Division.*

IN EQUITY—No. 244.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY,

Defendants.

**Assignment of Errors on Appeal.**

Now comes plaintiff herein, Simplex Window Company, by its counsel, and specifies and assigns the following as the errors upon which it will rely upon its appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the final decree made and entered by this Honorable Court on March 22, 1917, dismissing plaintiff's suit and awarding judgment for costs in favor of defendants, viz:

1. Error of the above-entitled court in ordering, adjudging and decreeing that plaintiff take nothing by its said action.

2. Error of the above-entitled court in ordering, adjudging and decreeing that plaintiff's complaint be dismissed.

3. Error of the above-entitled court in ordering, adjudging and decreeing that plaintiff take nothing in respect of and for the infringement of its United States letters patent No. 1,159,604, issued November 9, 1915, to Simplex Window Company.

4. Error of the above-entitled court in ordering, adjudging and decreeing that the suit be dismissed as to said United States letters patent No. 1,159,604, dated November 9th, 1915, to Simplex Window Company.

5. Error of the above-entitled court in ordering, adjudging [61] and decreeing that plaintiff take nothing in respect of and for the infringement of letters patent No. 1,072,669, issued September 9, 1913, to Simplex Window Company.

6. Error of the above-entitled court in dismissing

said suit in respect of said patent No. 1,072,669.

7. Error of the above-entitled court in failing to order, adjudge and decree that the said patent No. 1,159,604 is a good and valid patent and has been infringed by the defendants.

8. Error of the court in failing to order, adjudge and decree that the said patent No. 1,072,669 is a good and valid patent and has been infringed by the defendants.

9. Error of the above-entitled court in failing to award to plaintiff an injunction against further infringement of said letters patent No. 1,159,604.

10. Error of the above-entitled court in failing to award to the plaintiff an injunction against further infringement of said letters patent No. 1,072,669.

11. Error of the above-entitled court in failing to enter an interlocutory decree in favor of the plaintiff in the usual form, establishing the validity and prohibiting the infringement of the two letters patents in suit.

12. Error of the above-entitled court in ordering, adjudging and decreeing that the defendants have and recover of and from the plaintiff their costs and disbursements, taxed at the sum of \$88.20.

13. Error of the Court in ordering, adjudging and decreeing that defendants are entitled to any costs from the plaintiff.

NOW, THEREFORE, in order that the foregoing assignments of error may be and appear of record, plaintiff presents the same to the Court and prays that the same may be filed, and that such disposition be made thereof as is in accordance with the laws

of the United States in that behalf made and provided, [62] and plaintiff further prays that the said final decree be reversed and that the District Court of the United States for the Northern District of California be directed to enter an interlocutory decree in favor of the plaintiff and against the defendant in the usual form, adjudging the validity and infringement of the patents in suit, and enjoining any further infringement thereof, and referring the case to a Master in Chancery for an accounting of damages and profits.

All of which is respectfully submitted.

JOHN H. MILLER,

Solicitor and Counsel for Plaintiff.

Service of the within assignment of errors on appeal admitted this 17th day of April, A. D. 1917.

SCRIVNER & HETTMAN,

Atty. for Defendants.

[Endorsed]: Filed Apr. 19, 1917. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk. [63]

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*In the Southern Division of the District Court of the  
United States, in and for the Northern District  
of California, Second Division.*

No. 244—IN EQUITY.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,

Defendants.

**Order Allowing Appeal of Plaintiff from the Final Decree.**

The plaintiff having filed its petition in the above-entitled suit for an order allowing an appeal from the final decree therein, accompanied with an assignment of errors in due form,—

NOW, THEREFORE, upon motion of John H. Miller, Esq., solicitor and counsel for plaintiff, IT IS ORDERED that said petition be and the same is hereby granted, and the plaintiff is hereby allowed to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit from the final decree made and entered in the above-entitled case and dated March 22, 1917, in favor of the defendants and against the plaintiff, wherein and whereby it was ordered, adjudged and decreed that the plaintiff take nothing by its action, and that plaintiff's complaint be dismissed and defendants have and recover from plaintiff their costs and disbursements in said suit taxed at the sum of \$88.20.

And it is further ORDERED that the amount of security for costs which the plaintiff shall give on said appeal be and the same is hereby fixed at the sum of Three Hundred (300) Dollars.

And it further appearing that plaintiff has prayed for a [64] supersedeas and stay of execution of said decree pending said appeal, it is further ORDERED, ADJUDGED AND DECREED that the amount of security to be furnished by plaintiff for such supersedeas and stay be and the same is hereby fixed at the sum of Two Hundred Dollars (\$200) and



that upon plaintiff's furnishing and giving a bond on appeal in the aggregate sum of Five Hundred (\$500) Dollars, conditioned as required by law, all further proceedings in this Court and the issuance of execution be and the same is hereby stayed and superseded until the final determination of said appeal by the said United States Circuit Court of Appeals.

And it is further ORDERED that upon the giving of such bond, a certified transcript of the records and proceedings herein be forthwith transmitted to the said United States Circuit Court of Appeals for the Ninth Circuit.

Dated this 19th day of April, 1917.

WM. C. VAN FLEET,

Judge.

Service of the within order allowing appeal of plaintiff from final decree admitted this 17th day of April, A. D. 1917.

SCRIVNER & HETTMAN,

For Defendants.

[Endorsed]: Filed Apr. 19, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [65]

*In the Southern Division of the District Court of the  
United States, in and for the Northern District  
of California, Second Division.*

No. 244.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,

Defendants.

**Stipulation Fixing Amount of Security on Appeal.**

It is hereby stipulated and agreed by and between the parties to the above-entitled suit that the amount of security for costs which the plaintiff shall give on appeal be and the same is hereby fixed at the sum of Three Hundred (300) Dollars; also that the amount of security to be furnished by plaintiff for a supersedeas and stay of execution be and the same is hereby fixed at the sum of Two Hundred (200) Dollars; and that upon the plaintiff's furnishing and giving a bond on appeal in the aggregate sum of Five Hundred (500) Dollars, conditioned as required by law, all further proceedings in this court and the issuance of execution be stayed and superseded until the final determination of said appeal by the said United States Circuit Court of Appeals.

Dated this 17 day of April, 1917.

JOHN H. MILLER,

Attorney for Plaintiff.

SCRIVNER & HETTMAN,

Attorneys for Defendants.

So ordered:

WM. C. VAN FLEET,

Judge.

[Endorsed]: Filed Apr. 19, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [66]

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*In the Southern Division of the District Court of the  
United States, in and for the Northern District  
of California, Second Division.*

No. 244—IN EQUITY.

SIMPLEX WINDOW COMPANY,

Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,

Defendants.

**Bond on Appeal by Plaintiff from Final Decree.**

KNOW ALL MEN BY THESE PRESENTS:

That National Surety Company, a corporation organized and existing under and by virtue of the laws of the State of New York and duly authorized and licensed to transact a suretyship business in the State of California, and to furnish bonds in the Federal courts, is held and firmly bound in the penal sum of Five Hundred (500) Dollars to be paid to the defend-

ants, Hauser Reversible Window Company, Fred Hauser and Jessie Hauser, their and each of their successors and assigns, for which payment, well and truly to be made, the National Surety Company binds itself, its successors and assigns, firmly by these presents.

The condition of the foregoing bond is such, that whereas the Simplex Window Company, plaintiff in the above suit, has taken, or is about to take an appeal to the United States Circuit Court of Appeals for the Ninth Circuit, to reverse the final decree made and entered on the 22d day of March, 1917, by the District Court of the United States for the Northern District of California, Second Division, in the above-entitled suit, in favor of the defendants and against the plaintiff, wherein and whereby it was ordered, adjudged and decreed that plaintiff take nothing by its said action and that its complaint be dismissed, that defendants have and recover from the plaintiff the costs and disbursements taxed at the sum of Eighty-eight and 20/100 (\$88.20) Dollars, and that defendants have execution therefor; [67]

NOW, THEREFORE, the condition of the above obligation is such that if the said Simplex Window Company shall prosecute its said appeal to effect and shall answer all damages and costs, if it shall fail to make its plea good, then this obligation shall be void; otherwise to remain in full force and effect.

Dated at San Francisco, California, this 18th day of April, 1917.

[Seal] NATIONAL SURETY COMPANY,

By FRANK L. GILBERT,

Attorney in Fact.

The within bond is hereby approved.

WM. C. VAN FLEET,

Judge.

State of California,

City and County of San Francisco,—ss.

On this eighteenth day of April, in the year one thousand nine hundred and seventeen, before me, John McCallan, a Notary Public in and for the City and County of San Francisco, State of California, residing therein, duly commissioned and sworn, personally appeared Frank L. Gilbert, known to me to be the person whose name is subscribed to the within instrument as the attorney in fact of the National Surety Company, the corporation described in the within instrument, and also known to me to be the person who executed it on behalf of the corporation therein named, and the said Frank L. Gilbert acknowledged to me that he subscribed the name of the National Surety Company thereto as principal and his own name as attorney in fact.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the City and County of San Francisco, State of California, the day and year in this certificate first above written.

[Seal]

JOHN McCALLAN,

Notary Public in and for the City and County of San Francisco, State of California. [68]



[Endorsed]: Filed Apr. 19, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [69]

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*In the Southern Division of the United States Dis-  
trict Court, Northern District of California,  
Second Division.*

No. 244—IN EQUITY.

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
et al.,

Defendants.

**Order Allowing Withdrawal of Original Exhibits.**

On motion of John H. Miller, Esq., counsel for the Simplex Window Company, plaintiff, and good cause appearing therefor, it is by the Court

ORDERED that all original exhibits offered in evidence in the above-entitled case may be withdrawn from the files of the above-entitled court and of the clerk thereof, and by said clerk be transmitted to the United States Circuit Court of Appeals for the Ninth Circuit as a part of the record on appeal of the plaintiff herein to said Circuit Court of Appeals from the final decree, the said original exhibits to be returned to the files of this court upon the determination of said Appeal by said Circuit Court of Appeals.

Dated May 9th, 1917.

WM. C. VAN FLEET,  
Judge.

Service of the within Order allowing the withdrawal of original exhibits admitted this — day of May, A. D. 1917.

SCRIVNER & HETTMAN,  
Attys. for Defendants.

[Endorsed]: Filed May 9, 1917. W. B. Maling,  
Clerk. By J. A. Schaertzer, Deputy Clerk. [70]

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*In the Southern Division of the United States District Court, Northern District of California, Second Division.*

No. 244—IN EQUITY.

THE SIMPLEX WINDOW COMPANY,  
Plaintiff,

vs.

HAUSER REVERSIBLE WINDOW CO., FRED  
HAUSER & JESSIE HAUSER,  
Defendants.

**Certificate of Clerk U. S. District Court to  
Transcript of Record on Appeal.**

I, Walter B. Maling, Clerk of the District Court of the United States, in and for the Northern District of California, do hereby certify the foregoing seventy (70) pages, numbered from 1 to 70, inclusive, to be full, true and correct copies of the record and proceedings as enumerated in the Praeceptum for Transcript of Record, as the same remain on file and of record in the above-entitled cause, and that the same constitute the record on appeal to the United

States Circuit Court of Appeals for the Ninth Circuit.

I further certify that the cost of the foregoing transcript of record is \$40.60; that said amount was paid by John H. Miller, Esq., attorney for plaintiff; and that the original citation issued herein is hereunto annexed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said District Court this 31st day of May, A. D. 1917.

[Seal]

WALTER B. MALING,

Clerk. [71]

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**Citation on Appeal.**

UNITED STATES OF AMERICA,—ss.

The President of the United States, to Hauser Reversible Window Company, Fred Hauser and Jessie Hauser, Greeting:

You are hereby cited and admonished to be and appear at a United States Circuit Court of Appeals for the Ninth Circuit, to be holden at the City of San Francisco, in the State of California, within thirty days from the date hereof, pursuant to an order allowing an appeal, of record in the Clerk's Office of the United States District Court for the Northern District of California, Second Division, wherein The Simplex Window Company is appellant, and you are appellees, to show cause, if any there be, why the decree rendered against the said appellant, as in the said order allowing appeal mentioned, should not be

corrected, and why speedy justice should not be done to the parties in that behalf.

WITNESS, the Honorable WILLIAM C. VAN FLEET, United States District Judge for the Northern District of California, this 19th day of April, A. D. 1917.

WM. C. VAN FLEET,

United States District Judge. [72]

Service of the within Citation on Appeal admitted this 19th day of April, 1917.

SCRIVNER & HETTMAN,

Attorneys for Defendants.

[Endorsed]: No. 244. United States District Court for the Northern District of California, Second Division. The Simplex Window Company, Appellant, vs. Hauser Reversible Window Company et al., Appellees. Citation on Appeal. Filed Apr. 19, 1917. W. B. Maling, Clerk. By J. A. Schaertzer, Deputy Clerk.

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[Endorsed]: No. 3004. United States Circuit Court of Appeals for the Ninth Circuit. The Simplex Window Company, a Corporation, Appellant, vs. Hauser Reversible Window Company, a Corporation, Fred Hauser and Jessie Hauser, Appellees. Transcript of Record. Upon Appeal from the Southern Division of the United States District

Court for the Northern District of California,  
Second Division.

Filed May 31, 1917.

FRANK D. MONCKTON,

Clerk of the United States Circuit Court of Appeals  
for the Ninth Circuit.

By Paul P. O'Brien,  
Deputy Clerk.

---

*In the United States Circuit Court of Appeals for  
the Ninth Circuit.*

THE SIMPLEX WINDOW COMPANY,

Plaintiff and Appellant,

vs.

HANSEN REVERSIBLE WINDOW COMPANY  
et al.,

Defendant and Appellee.

**Stipulation Under Rule 23.**

IT IS HEREBY STIPULATED AND AGREED  
by and between the parties to the above-entitled suit,  
that the following portions of the record on appeal  
need not be printed as a part of the printed record,  
to wit:

Defendant's exhibit file wrapper contents of Soule  
and Larsen patent No. 1,159,604, being an exhibit  
filed by the defendant in the court below on June 1,  
1917.

IT IS FURTHER STIPULATED AND  
AGREED that this stipulation shall not operate to  
prevent said portions so omitted from the printed



record being used and referred to by either of the  
J. H. M.  
S. & H. parties on the hearing of this appeal, ~~the~~  
~~same being agreeable to the court.~~

IT IS FURTHER AGREED that this Stipulation and Plaintiff's Exhibit No. 1, Soule and Larsen Patent No. 1,159,604, are to be printed as part of the record on appeal.

JOHN H. MILLER,  
 Solicitor for Appellant.  
 SCRIVNER & HETTMAN,  
 Solicitors for Appellee.

Dated July 14th, 1917.

[Endorsed]: No. 3004. In the United States Circuit Court of Appeals for the Ninth Circuit. The Simplex Window Co., Plaintiff and Appellant, vs. Hansen Reversible Window Company et al., Defts. and Appellees. Stipulation. Filed Jul. 14, 1917. F. D. Monckton, Clerk.

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*In the United States Circuit Court of Appeals for  
 the Ninth Circuit.*

No. 244—IN EQUITY.

THE SIMPLEX WINDOW COMPANY,  
 Appellant,

vs.

HAUSER REVERSIBLE WINDOW COMPANY  
 et al.,

Appellees.

**Order Extending Time to File Record and Docket Cause.**

Good cause appearing therefor;

IT IS HEREBY ORDERED, that appellant's time in which to file the record herein and docket the case with the clerk of the United States Circuit Court of Appeals for the Ninth Circuit, be and the same is hereby enlarged, and that appellant be and hereby is given thirty (30) days from date within which to do so, and the time within which to certify to said record and to file transcript thereof is extended accordingly.

Dated May 18, 1917.

WM. H. HUNT,  
Judge.

[Endorsed]: No. 3004. United States Circuit Court of Appeals for the Ninth Circuit. The Simplex Window Company vs. Houser Reversible Window Company et al. Order Under Rule 16 Enlarging Time to June 17, 1917, to File Record Thereof and to Docket Case. Filed May 18, 1917. F. D. Monckton, Clerk. Refiled May 31, 1917. F. D. Monckton, Clerk.

**Plaintiff's Exhibit No. 1—Soule and Larsen Patent  
No. 1,159,604.**

No. 1,159,604.

**THE UNITED STATES OF AMERICA.**

To All to Whom These Presents Shall Come:

WHEREAS, ARTHUR C. SOULE and LOUIS A. LARSEN, of San Francisco, California, have presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in

**WINDOWS,**

They having assigned their right, title, and interest in said improvement, by mesne assignments, to The Simplex Window Company, of San Francisco, California, a corporation of California, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and have complied with the various requirements of Law in such cases made and provided, and

WHEREAS, upon due examination made the said Claimants are adjudged to be justly entitled to a patent under the Law.

Now, therefore, these Letters Patent are to grant unto the said The Simplex Window Company, its successors or assigns for the term of Seventeen years from the ninth day of November, one thousand nine hundred and fifteen, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the seal of the Patent Office to be affixed at the City of Washington this ninth day of November, in the year of our Lord one thousand nine hundred and fifteen, and of the Independence of the United States of America the one hundred and fortieth.

[Seal]

J. T. NEWTON,  
Acting Commissioner of Patents.

A C SOULE &amp; L A LARSEN

WINDOW

APPLICATION FILED OCT 31 1911

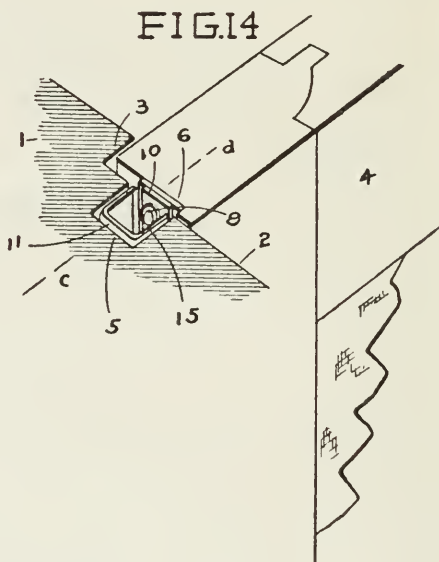
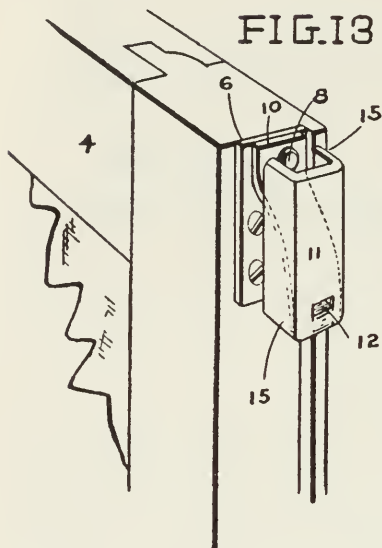
1,159,604.

Patented Nov. 9, 1915

3 SHEETS—SHEET 3

FIG. 13

FIG. 14



• FIG. 15

FIG. 16

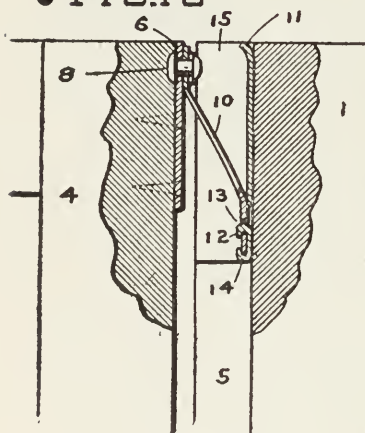
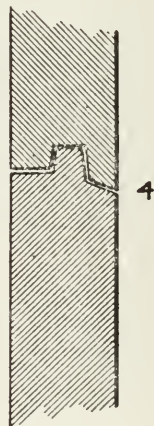


FIG. 17



WITNESSES

*H. Montague Hall,*  
*B. B. Wheeler*

INVENTORS  
 A. C. SOULE  
 L. A. LARSEN  
*for A. S. Paré*  
 ATTORNEY



A. C. SOULE & L. A. LARSEN.

WINDOW.

APPLICATION FILED OCT. 31, 1911.

1,159,604.

Patented Nov. 9, 1915.

3 SHEETS—SHEET 2.

FIG. 8

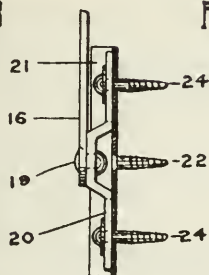


FIG. 9

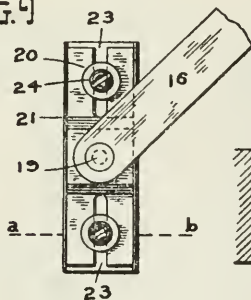


FIG. 10

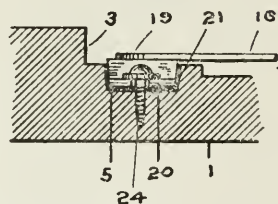


FIG. 11

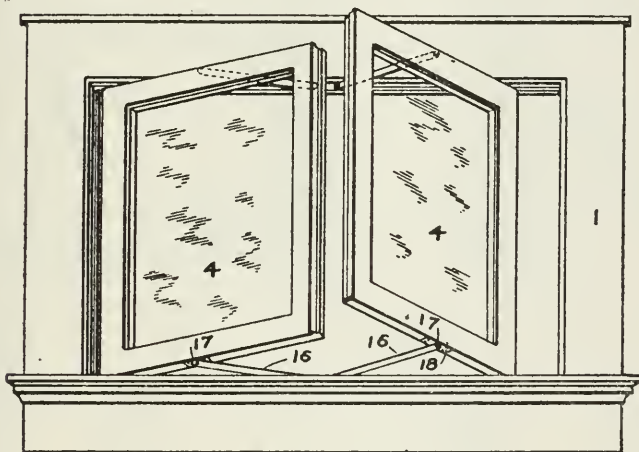
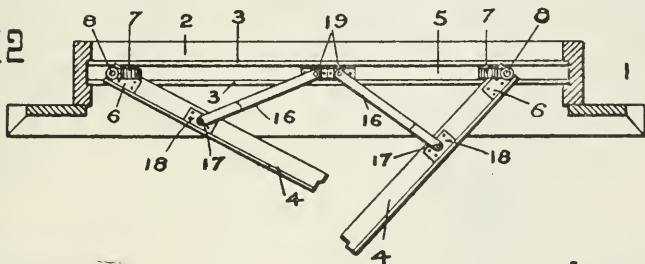


FIG. 12



WITNESSES  
M S Leve  
B C. Chester.

INVENTORS

A. C. SOULE  
L. A. LARSEN  
per A. S. Pare  
ATTORNEY

A. C. SOULE &amp; L. A. LARSEN.

WINDOW.

APPLICATION FILED OCT. 31, 1911.

1,159,604.

Patented Nov. 9, 1915.

3 SHEETS—SHEET 1.

FIG. 2

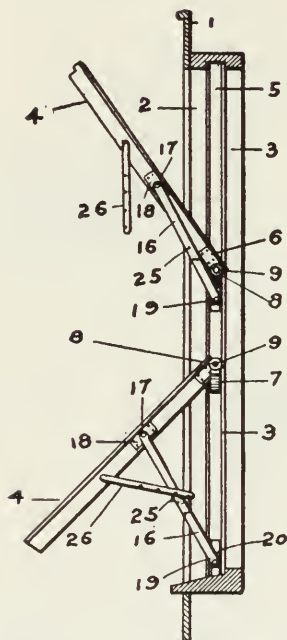


FIG. 1

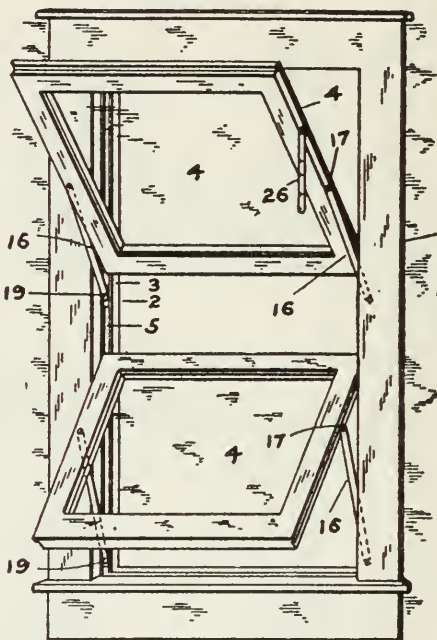


FIG. 3

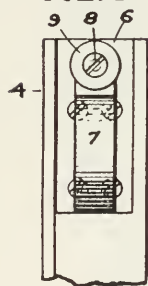


FIG. 4

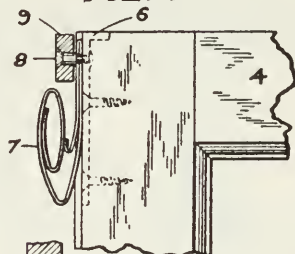


FIG. 6

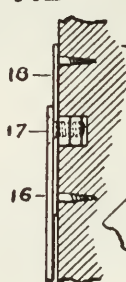


FIG. 7

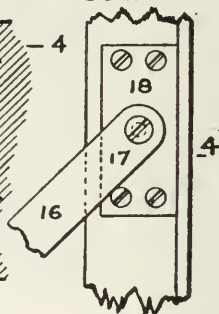
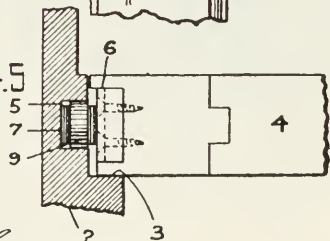


FIG. 5



WITNESSES

M. S. Leav  
B. C. Chester

INVENTORS

A. C. SOULE  
L. A. LARSEN  
per A. S. Tare  
ATTORNEY

UNITED STATES PATENT OFFICE.

ARTHUR C. SOULE AND LOUIS A. LARSEN, OF SAN FRANCISCO, CALIFORNIA,  
ASSIGNORS, BY MESNE ASSIGNMENTS, TO THE SIMPLEX WINDOW COM-  
PANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

WINDOW.

1,159,604.

Specification of Letters Patent.

Patented Nov. 9, 1915.

Application filed October 31, 1911. Serial No. 657,784.

To all whom it may concern:

Be it known that we, ARTHUR C. SOULE and LOUIS A. LARSEN, citizens of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Windows, whereof the following is a specification.

Our invention relates in general way to windows, and especially to swinging windows which move entirely to one side or the other of a supporting frame as opposed to centrally pivoted windows, which, when opened, lie with their sashes on both sides of the frame.

Centrally pivoted windows have the upper and lower parts of their sashes acting as counterweights to each other, and are practically balanced in any position; but windows which swing from one of their edges are counter-weighted; or fixed in position by adjusting means or devices which require to be moved and operated by hand or otherwise and through which the sashes moved.

It is also characteristic of windows hinged on their edges that only one face is turned inwardly, which makes washing of the outside thereof a difficult matter. Furthermore vertically sliding windows hung usually by counterweights move in one direction and thereby open one-half of the space in which they operate.

It is our object to provide a novel window in which the sash swings entirely to one side of the frame, and which requires no counterweights or mechanism to give it stability in any position desired, and in which the sash may be turned with either face inward or outward.

A further object of our invention is to provide simple and effective means for hanging, operating and controlling the movements of the sashes and to increase the opening space in operation.

With these and other objects in view, the nature of which will appear in the following specification, our invention consists in a grooved window-frame, in which friction guides are slidably secured and support the sash in pivoted position near its upper ends, and carrier arms, one end of which is pivotally secured to the side of said sash, near its vertical center, while the other end is pivoted to the side of the window frame.

The invention further consists in providing window frames with a sill and jambs designed to receive a sash and form therewith a water tight joint by providing the jambs with a rabbet and the side walls of the rabbet provide a stop for the sash when the same is in a closed position.

It also further consists in the novel combinations, parts and arrangements, explained in the following description, and particularly pointed out in the claims at the end hereof, and illustrated in the accompanying three sheets of drawings, in which,

Figure 1, is a perspective view of a window-frame and the sashes therein in open position, looking from the outer side thereof, constructed and arranged in accordance with our invention. Fig. 2, is a side elevation of Fig. 1, the window-frame being in cross section. Fig. 3, is a front elevation of one form of our friction-guides as applied to the upper edge of a sash by which the same is supported in pivoted position in the window-frame. Fig. 4, is a side elevation of Fig. 3. Fig. 5, is a plan view of Fig. 4 showing the window-frame in cross section. Fig. 6, is a side elevation of a portion of our pivoted carrier arm, at the point connected to the sash which is shown in vertical section. Fig. 7, is a front elevation of the parts shown in Fig. 6. Fig. 8, is a side elevation of a detached portion of our pivoted carrier-arm and its adjacent parts at the point connected to the window-frame. Fig. 9, is a front elevation of the parts shown in Fig. 8. Fig. 10, is a cross sectional view of Fig. 9, taken on dotted line *a, b*, showing also a broken portion of the window-frame. Fig. 11, is a perspective view of our window, looking from the outer side thereof and showing the sashes disposed to swing horizontally. Fig. 12, is a plan view of our window-frame horizontally disposed, with the top thereof cut away and the sashes therein in open position. Fig. 13, is a perspective view of the upper outer edge corner of a sash showing a modified form of the friction-guide and spring connection pivoted to the stile thereof. Fig. 14, is a perspective view of the parts shown in Fig. 13 also showing a broken cross section of the window-frame. Fig. 15, is a vertical elevation taken from line *c, d* of Fig. 14, showing the arrangement and connection of the



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friction-guides and their adjacent parts. Fig. 16, is a cross sectional view showing the meeting longitudinal edges of an upper and lower sash formed into a lapping joint and, 5 Fig. 17, is a similar view showing the meeting edges formed into a tongue and groove joint.

The same symbol of reference marks the same part in whichever view it may appear. 10

Referring to the drawings, the frame 1 is provided with side jambs 2 having the rabbet 3 formed therein, the side wall surrounding said rabbet 3 adapted to form a suitable 15 seat and weather strip for the sash when the same is in a closed position.

Within the side jambs is groove 5 which may be lined with metallic strips or casing (not shown) to improve the wearing efficiency and adapted to receive therein a slidable friction guide by which the sash 4 is pivotally supported within the window-frame in any position desired. 20

The friction-guide just mentioned is 25 shown in detail in Figs. 3, 4, and 5 and in modified form in Figs. 13, 14, and 15. In the first form it comprises a plate 6 which may be secured to the outer upper edges of the sash by means of screws or other suitable method of fastening and to said plate is pivotally secured a spring 7, of an elliptic shape adapted to slide in the grooves 5 and support therein the sash in whatever position the same may be adjusted by the 35 spring pressure between the plates 6 and the frame.

At the pivot point 8 of the spring 7 is an anti-friction wheel 9 which also enters and slides in the groove 5 and acts together 40 with the spring 7 to slidably secure the sash in position within its casing. These features are shown in Figs. 3, 4, and 5.

Referring now to the modified form of the friction-guide shown in Figs. 13, 14 45 and 15, the plate 6 is secured to the sash in the manner above described, and the spring 10 therein shown is pivotally secured at one end to said plate as at 8, while its other end is rigidly fastened to a bearing plate 11 by means of tongue 12 punched out therefrom and passing through a hole 13 in the spring and bent over the edge thereof and the downward projecting end 14 of the bearing plate 11 is bent over the 55 end of the spring thus locking the same rigidly in position as shown in Fig. 15. The bearing plate just mentioned is provided with side flanges 15 slidably adjusted in the grooves 5 so that pressure from the 60 spring 10 is exerted between plate 6 and the bearing plate 11 for every possible position of the sash and the ends of the flanges 15 together with the ends of bearing plate 11 are slightly bent inwardly to facilitate 65 the sliding movements in the grooves.

The sash is rabbeted along the outer vertical face of its stiles to receive and partially inclose the friction-guide and the carrier-arm 16 which lies between the jambs and the sash when the window is closed. 70 The carrier-arm just mentioned is pivotally secured at one of its ends as at 17 to a wearing plate 18 which is secured to the rabbeted portion of the stiles close to the vertical center thereof as shown in Figs. 1, 2, 75 1, and 12 and more particularly Figs. 6 and 7. This method of pivoting and securing that portion of the carrier-arm to the sash, constitutes an efficient fastening means and at the same time the other end of the 80 carrier-arm 16 is pivoted in the groove 5, of the side jambs 2 as at 19 by means of plate 20 adjustably mounted in casing 21 which is adapted to fit in the groove 5 and is secured therein by means of the screw 22 85 as shown particularly in Figs. 8, 9, and 10.

The ends of plate 20 are provided with slots 23 to permit such adjustments in the casing 21 as may be necessary while setting up the sash permanently in position and which is accomplished by means of screws 90 24 engaging the slots 23 and passing through the bottom part of the casings and screwed to the window-frame thus securing the plates in position. 95

The middle portion of the plate 20 forms the pivot point 19 of carrier-arm 16 which is raised above the edges of the groove 5 so that the carrier-arm can move freely 100 while opening or closing the sash.

When the window is open as shown in Figs. 1 and 2, the portion of the sash between the points 17 and 8, the portion of the frame, between the points 8 and 19 and the carrier-arm 16 form a triangle in which 105 the lengths of two of the sides, to wit, the side 17—19 and the side 17—8, are fixed and in which the point 17 forms the vertex and point 19 is fixed. The point 8 by this construction always lies in the plane of the 110 jamb. As the window opens and closes the altitude of the triangle aforesaid varies; for which reason, there being two sides of the triangle fixed in length, the third side must vary in correspondence with the 115 change of altitude. It is part of the function of the friction-guide to vary the third side by sliding in the groove 5.

By the described construction, the sash 4 swings entirely to one side of the frame; 120 and by the frictional activity of the friction-guide and the supporting action of the arm 16, the sash is stably fixed in any position desired, without counterweight.

Describing now the arrangement whereby 125 either face of the glass may be turned inwardly, the desired result is obtained by making the distance between point 17 and the point 8 shorter than the distance between the points 17 and 19, whereby the 130

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friction-guide may slide past the position in which the plane of the sash forms a right angle with the jamb, into a position where it forms an obtuse angle with the portion 5 of the frame included between the point 8 and the point 19. Such a position is illustrated in Figs. 1 and 2 by the upper sash.

The drawings illustrate a double sashed window, the edges thereof being rabbeted; and 10 the jointing edges of the two sashes are rabbeted to fit each other or form into lap-joint as shown in Fig. 16 or tongue and groove as in Fig. 17. Of course where only one sash is used both the upper and lower sash rails 15 are formed to fit the lintel and sill. Such construction is shown at the upper edge of the upper sash and the lower edge of the lower sash, in Fig. 2.

The closed sash may be locked by any 20 suitable means (not shown in the drawing). In the open position two states are disclosed, one, which may be called the normal is shown by the lower sash, and the other abnormal, shown by the upper sash, and only 25 used when it is desired to clean the outside surface of the glass. The open window may be locked in the normal position of the sash if desired by means of the pin 25 on carrier-arm 16 and the notched arm 26, pivoted to 30 the sash as particularly shown in Fig. 2.

Referring now to Figs. 11 and 12, they are presented to show our window disposed so the sash may swing in horizontal instead of vertical arcs. The lintel and sill are provided with grooves, instead of the side 35 jambs, as in Figs. 1 and 2; and the friction-guides slide horizontally instead of verti-

cally. Therefore in reading the above description as applied to our horizontally disposed window, it is only necessary to change 40 the terms jamb, lintel and sill in an obvious way, to render Figs. 11 and 12 clearly comprehensible.

Having described our invention what we claim as new and desire to secure by Letters Patent of the United States, modification within the scope of the claims being expressly reserved, is:

1. In combination with a window frame having grooves therein, a sash adapted to 50 operate in said frame, carrier arms adapted to support the central portion of the sash, an arm connected to the sash, the said arm adapted to engage the carrier arms and lock the sash in an open position. 55

2. In combination with a window frame having grooves therein, a sash adapted to operate in said frame, carrier arms adapted to support the central portion of the sash, each of the arms having lugs projecting 60 from the side thereof, an arm having notches, said arm being connected to the sash, the said notches in the arm adapted to receive the respective lugs on the carrier arms, and lock the sash in an open position. 65

In testimony that we claim the foregoing we have hereto set our hands in the presence of witnesses, this 26th. day of Oct. 1911.

ARTHUR C. SOULE.  
LOUIS A. LARSEN.

Witnesses:

BLANCHE CHESTER,  
K. MONTAGUE HALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

[Endorsed]: No. 244. U. S. Dist. Court, Nor. Dist. Calif. Plff. Exhibit 1. Filed Jan. 29, 1917. W. B. Maling, Clerk.

No. 3004. U. S. Circuit Court of Appeals for the Ninth Circuit. Plaintiff's Exhibit 1. Filed Jun. 1, 1917. F. D. Monckton, Clerk.



**Plaintiff's Exhibit No. 2—Soule Patent No.  
1,072,669.**

No. 1,072,669.

**THE UNITED STATES OF AMERICA.**

To All to Whom These Presents Shall Come:

WHEREAS, ARTHUR C. SOULE, of San Francisco, California, has presented to the Commissioner of Patents a petition praying for the grant of Letters Patent for an alleged new and useful improvement in

**WINDOWS,**

He having assigned his right, title, and interest in said improvement, by mesne assignments, to The Simplex Window Company, of San Francisco, California, a corporation of California, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of Law in such cases made and provided, and

WHEREAS, upon due examination made the said Claimant is adjudged to be justly entitled to a Patent under the Law.

Now, therefore, these Letters Patent are to grant unto the said The Simplex Window Company, its successors or assigns for the term of Seventeen years from the ninth day of September, one thousand nine hundred and thirteen, the exclusive right to make, use and vend the said invention throughout the United States and the Territories thereof.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the seal of the Patent Office

to be affixed at the City of Washington, this ninth day of September, in the year of our Lord one thousand nine hundred and thirteen, and of the Independence of the United States of America the one hundred and thirty-eighth.

[Seal]

R. T. FRAZIER,  
Acting Commissioner of Patents.

A. C. SOULE.

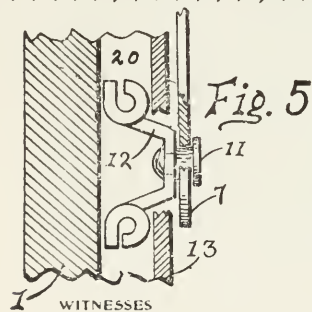
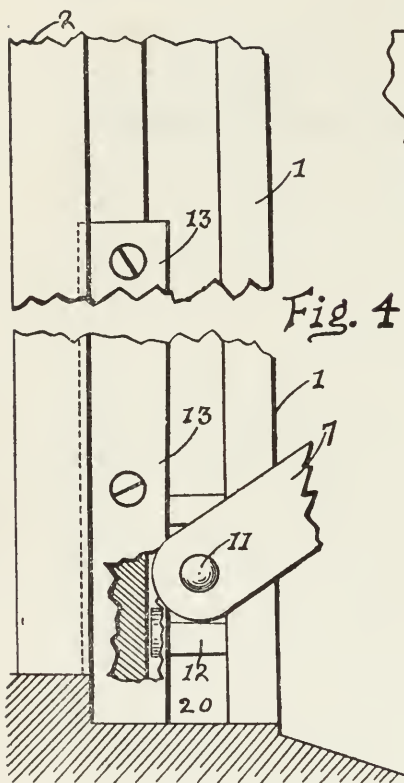
WINDOW

APPLICATION FILED AUG. 21, 1912

1,072,669.

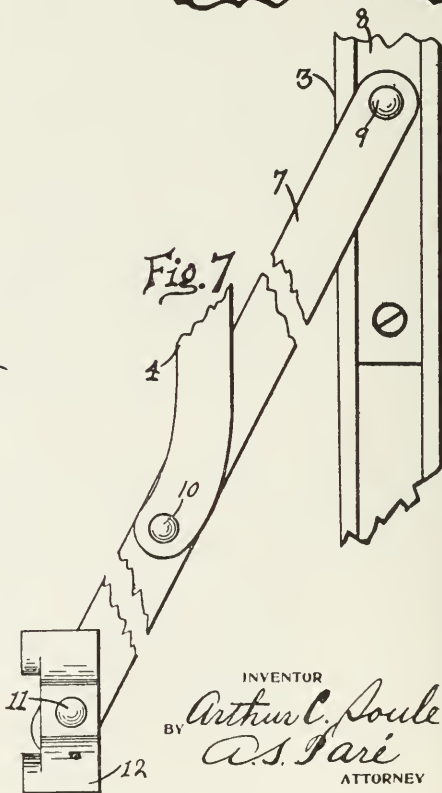
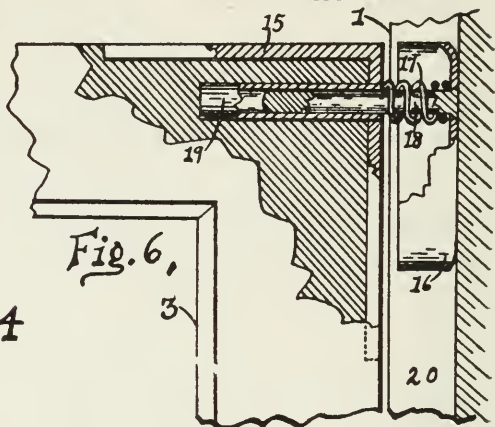
Patented Sept. 9, 1913.

2 SHEETS—SHEET 2.



WITNESSES

M. A. Miller  
Emily Wilder



INVENTOR

BY *Arthur C. Soule*  
*A. S. Pare*  
ATTORNEY

A. C. SOULE.

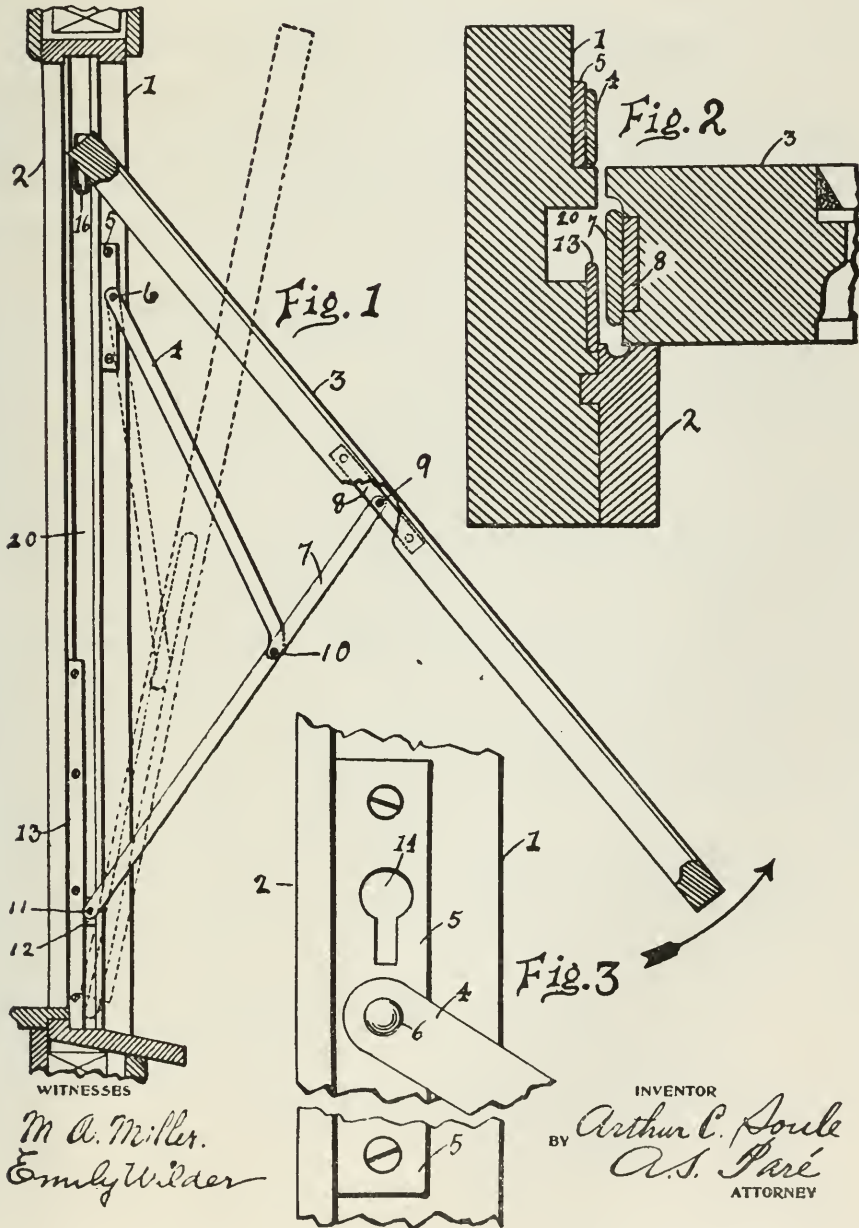
WINDOW

APPLIOATION FILED AUG 21, 1912.

**1,072,669.**

Patented Sept. 9, 1913.

2 SHEETS-SHEET 1.



## UNITED STATES PATENT OFFICE.

ARTHUR C. SOULE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE SIMPLEX WINDOW COMPANY, OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

## WINDOW.

1,072,669.

Specification of Letters Patent.

Patented Sept. 9, 1913.

Application filed August 21, 1912. Serial No. 716,197.

To all whom it may concern:

Be it known that I, ARTHUR C. SOULE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Windows, whereof the following is a specification.

My invention relates to windows, and especially to windows of the swinging reversible sash type; and it has for its object to provide a new and improved window of the character specified which, while remaining in a state of stable equilibrium in whatever position it may be placed, may readily be moved from any position to any other.

With this object in view my invention consists in a sash slidably pivoted in a window frame, adjuster arms having one end fixedly pivoted in and slightly above the middle points of the stiles and the other end slidably pivoted in the frame; and carrier arms having one end fixedly pivoted in the frame, and the other end fixedly pivoted to the adjuster arms.

It also consists in the combination with a frame, sash, adjuster arm, and carrier arm of a plate having means for automatically adjusting its position on the frame.

It also consists in the novel parts, combinations, and arrangements, set forth in the following description, particularly pointed out in the claims, and illustrated in the accompanying two sheets of drawings, of which—

Figure 1 is a side elevation of my invention, partly in section, showing the frame, sash, one adjuster arm, and one carrier arm, their attachments and mutual relations, also showing in dotted lines the window as it appears in reversed position. Fig. 2 is an enlarged cross section of Fig. 1 as it appears when the window is closed; Fig. 3 is a detail view of the upper wearing plate of the carrier arm, and adjacent parts, showing the means for automatically adjusting said plate; Fig. 4 is a detail view of the lower end of the adjuster arm, its means of attachment to its sliding fixture, and of the adjacent parts, showing the retaining stop; Fig. 5 is a further detail of the sliding fixtures of the adjuster arm showing an edge view of the same in relation to a vertical section of the frame; Fig. 6, is a detail view of the pivot shoe, and the pivoted attachment of

the sash thereto; and Fig. 7 is a broken detail of the adjuster arm, part of the carrier arm connected therewith, the upper wearing plate of the adjuster arm, and an elevation of the sliding fixture attached to the lower end of the adjuster arm.

The same symbol of reference marks the same part in whichever view said part may appear.

Describing my invention in detail, and referring again to the drawing, 1 is the side window jamb, 2 is the stop, and 3 is the sash. Up and down the frame on both jambs of the window run grooves 20, and shoes 16 are slidably located therein, as are also sliding fixtures 12. To shoes 16 the sash at its upper end is pivoted, the detailed arrangement being shown in Fig. 6, where 15 is a pivot shoe plate, 18 a stem supporting the pivot shoe, said stem being surrounded by a sleeve or casing 19, fixed in a hole in the sash, and having a spring 17 which tends to press the shoe against the side of the groove 20.

By the above mentioned means the sash is slidably pivoted in the frame—but so far as described the sash has but one position of stable equilibrium, which is the closed position of the window. It is given stable equilibrium in other positions by the adjuster arms 7, which have one end fixedly pivoted to points in the stiles of the sash. The best location of these points is near the middle of the stile, being about two inches above said middle points. One end of the arm is pivotally attached by pivot 9 to wearing plates 8 which are screwed to the sash; and the other ends are pivoted by pivot 11 to the sliding fixtures 12, which are located in the grooves 20, and slide therein. The details of the sliding fixtures are shown in Figs. 4, 5, and 7, and are so arranged as to be held in the slot by the retaining stop 13, which extends from the bottom of the frame to about the point shown in Fig. 1. For further securing the general equilibrium desired, and for allowing the window to be readily shifted from one position to another, I provide carrier arms 4, one end of which is pivoted to the corresponding adjuster arm 7 by pivot 10 at a point about one third the length of said arm measured from the pivot 9. The other end of carrier arm 4 is pivoted to the frame by



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means of the pivot 6 in wearing plate 5, which is set in the jamb by screws, its location being determined by means of the adjusting slot 14. The approximate location is first determined, and the plate loosely set in place by means of a screw not shown in said adjusting slot. The sash is then moved to proper position within its frame, the plate sliding about said screw until its proper location is disclosed. It is then fastened by permanent screws as shown. The lower part of carrier arm 4 is curved as shown in the drawing (Figs. 1 and 7). The reason for curving the end is to allow the window to close, the position of the pivot 10 being then at a point to the left of the pivot 6, and directly above pivot 11.

The window described possesses among its other novelties and utilities the quality of being fully reversible, as indicated by the arrow and the dotted lines in Fig. 1, which show the arms falling into their reversed positions.

Having described my invention and believing that I have produced novel and useful improvements in the class to which the same appertains, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. A window comprising a frame, a sash slidably pivoted in said frame, adjuster arms, one end of which being fixedly pivoted at points slightly above the middle of the sash stiles, and the other end slidably pivoted in the frame, and carrier arms one end of which is fixedly pivoted in the frame and the other end fixedly pivoted to the corresponding adjuster arm.

2. A window comprising a frame longitudinally grooved in both jambs, shoes slidable in said grooves, a sash pivoted at its upper edge to said shoes, sliding fixtures in said grooves, adjuster arms fixedly pivoted at one end to said sash at points slightly above the middle points of the stiles of said sash and at the other end pivoted to said sliding fixtures; and carrier arms fixedly pivoted at one end to the frame and at the other end fixedly pivoted to the corresponding adjuster arm.

3. A window comprising a frame longitudinally grooved in both jambs, shoes slidable in said grooves, a sash pivoted at its upper edge to said shoes, sliding fixtures in

said grooves, adjuster arms fixedly pivoted at one end to said sash at points slightly above the middle points of the stiles of said sash and at the other end pivoted to said sliding fixtures; adjustable wearing plates on said frame, and carrier arms fixedly pivoted at one end to said adjustable plates and at the other end fixedly pivoted to the corresponding adjuster arm.

4. A window comprising a frame, a sash in said frame, an adjuster arm pivotedly secured at one end to said frame and at the other end to said sash and a carrier arm pivotally secured at one end to said frame and at the other end to said adjuster arm.

5. A window comprising a frame, a sash in said frame, an adjuster arm slidably pivoted in the frame and fixedly pivoted in the sash and a carrier arm fixedly pivoted in the frame and to said adjuster arm.

6. A window comprising a frame, a sash mounted in said frame, an adjuster arm slidably pivoted at one end to the frame and fixedly pivoted at the other end to the sash and a carrier arm fixedly pivoted at one end to said frame and at the other end to said adjuster arm.

7. A reversible window comprising a sash, an adjuster arm of suitable length, a carrier arm supporting said adjuster arm and window sash, a slidable pivoted connection between said frame and one end of said adjuster arm, and a pivoted connection between the other end of said adjuster arm and points near the middle of the sash-stiles about which said sash is rotatable.

8. A window comprising a frame having a grooved jamb, shoes slidable in said groove, a sash pivoted to said shoes, a pressure spring between said shoe and sash, a sliding fixture in said groove, an adjuster arm fixedly pivoted at one end to said sash and at the other end pivoted to said sliding fixture; and a carrier arm fixedly pivoted at one end to the frame and at the other end fixedly pivoted to the adjuster arm.

In testimony whereof I claim the foregoing I have hereto set my hand in the presence of two witnesses, this 16th day of August, 1912.

ARTHUR C. SOULE.

Witnesses:

M. A. MILLER,

A. J. HENRY.

[Endorsed]: U. S. of America. Letters Patent #1,072,669.

No. 244. U. S. Dist. Court, Nor. Dist. Calif. Plff. Exhibit 2. Filed Jan. 29, 1917. W. B. Maling, Clerk.

No. 3004. U. S. Circuit Court of Appeals for the Ninth Circuit. Plaintiff's Exhibit 2. Filed Jun. 1, 1917. F. D. Monckton, Clerk.

Defendants' Exhibit "A"—Hauser Patent No.

1,114,260.

F. HAUSER.

WINDOW.

APPLICATION FILED JAN. 6, 1914

1,114,260.

Patented Oct. 20, 1914.

FIG. 1

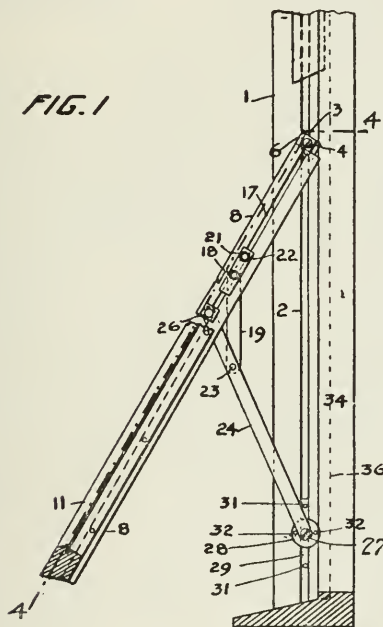


FIG. 2

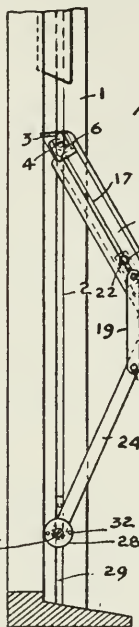


FIG. 3

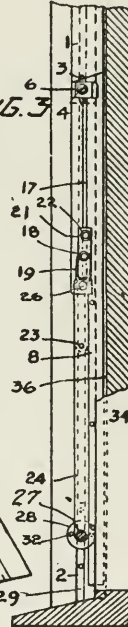


FIG. 4

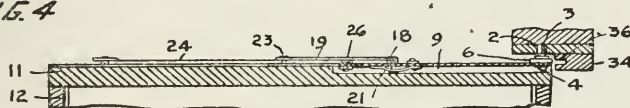


FIG. 5

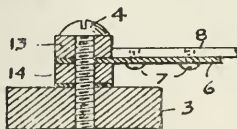


FIG. 6

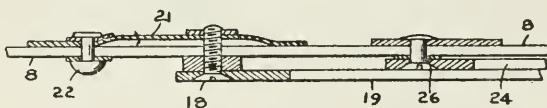
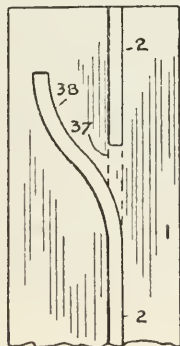


FIG. 7



WITNESSES

G. M. Ball  
Lombard

INVENTOR,  
FREDERICK HAUSER

By J. M. Wright  
ATTORNEY

## UNITED STATES PATENT OFFICE.

FREDERICK HAUSER, OF SAN FRANCISCO, CALIFORNIA.

## WINDOW.

1,114,260.

Specification of Letters Patent.

Patented Oct. 20, 1914.

Application filed January 6, 1914. Serial No. 810,543.

*To all whom it may concern:*

Be it known that I, FREDERICK HAUSER, a citizen of the United States residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Windows, of which the following is a specification.

One object of the present invention is to provide means for so securing window sashes in window frames that they can be swung horizontally and reversed to permit both sides of the sash to be readily cleaned from the inside of the room.

A further object is to provide such fastening means which will be simple and inexpensive, and which can be readily secured in place by a carpenter having no special skill or experience.

A further object is to provide such fastening means which can readily be adapted to the usual slidable window sashes, to convert them into swinging reversible sashes.

In the accompanying drawing, Figure 1 is a vertical section of a window, the lower sash being open; Fig. 2 is a similar view looking from the side opposite to that in Fig. 1; Fig. 3 is a vertical section of the window, both sashes being closed; Fig. 4 is a section on the line 4—4 of Fig. 1; Fig. 5 is an enlarged section, showing the connection of a sash with a slidable block; Fig. 6 is a longitudinal section through a slotted plate; Fig. 7 is a broken side view of a modified form of window frame member.

Referring to the drawing, 1 indicates the pulley stile of an ordinary window frame of which the parting bead has been removed from the groove 2 thereof. In the groove 2 of each pulley stile can slide a metal block 3 having preferably rounded or tapering ends. Into a threaded hole in said block is screwed a screw 4, which passes through a plate 6, secured by screws 7 to a flat bar 8, the head of said screw being received in the top of a groove 9 in the outer surface of the adjacent side rail 11 of the window sash 12, and being held against movement through said plate 6 by lock nuts 13, 14, one on each side of said plate 6. By removing the slide blocks from the grooves 2 and screwing or unscrewing said slide blocks upon the screws 4 the sash may be made tighter or looser within the frame, as required. Said bar 8 is secured by screws 16 in a recess or mortised portion of the side rail, 11 of the sash, and its upper portion is preferably wider than

its lower, and has a long slot 17 in which can slide a screw 18, passing through an end of a link 19, the inner end of the screw 18 being riveted to a bow spring 21, near one end, the other end of the spring having a rivet 22 passing therethrough and also through the slot 17 to form a guide. The ends of said spring 21 bear against the under side of the flat bar 8 and create sufficient friction thereagainst, to prevent the window sash moving from any position to which it has been turned. The other end of said link is pivoted, as shown at 23, to a mediate point of an arm 24, of which one end is pivoted, as shown at 26, to the lower end of the slotted portion of the bar 8. Through the lower end of said arm passes a screw 27, which also passes through a plate 28, and is then screwed into a stationary block 29 in the groove 2, and is also screwed into the pulley stile 1 at the bottom of said groove 2. Said block is additionally secured by screws 31 extending through holes in its ends and screwed into said pulley stile at the bottom of said groove. Said plate 28 is also secured by screws 32 to said pulley stile on opposite sides of said groove. By this construction it results that if there is sufficient friction caused by frictional engagement of the spring 18 with the slotted bar 5, said window sash will remain in any position to which it has been opened, notwithstanding that there is no direct support for said window sash. It is also evident that the top of the window sash can be lowered to a point not much higher than the pivots or screws 27, the bottom of the window sash then extending upwardly to a much greater height than the top, so that the window sash is almost entirely reversed and thus can be readily cleaned from the inside.

The inner edge of the slotted plate or bar 8 extends slightly inward, beyond the inner face of the sash rail, and I provide an inner stop 34 for said sash rail having in its outer face a groove 36 to receive said inwardly projecting edge of the slotted bar 8. Said bar, extending inwardly into said grooved portion of the window stop, forms a very complete closure for excluding moisture and drafts from the interior of the room.

In the preferred form of my invention, that is, when making an entirely new window in accordance with my invention, I place one sash immediately over the other, and in that case the grooves 2 extend from



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top to bottom of the window in a straight line. But when it is desired to reconstruct in accordance with my invention a window of the old style, in which the lower sash is not immediately below the upper sash, I may block up, as shown at 37 in Fig. 7, the grooves 2 opposite the juncture of the upper and lower sash, and then continue, as shown at 38, the lower part of said grooves 2 in a direction curved inwardly and upwardly, thus allowing the top of the lower sash, when in its closed position, to be at the inner side of the bottom of the upper sash. In this case, the pivots 27 for the arms 24 will not be in the grooves 2, but to the inner side thereof, so that the lower part of said grooves 2 will be visible from the outside of the window.

I claim:—

1. A reversible window having a longitudinally grooved side frame member, a sash having a longitudinally grooved part adjacent to the side frame member, a block pivoted thereto and slidable in the first-named groove, an arm pivoted at one end to said member, an element frictionally slidable in said second-named groove, and a link piv-

otally connected at its ends to said slidable element and arm respectively.

2. A reversible window having a longitudinally grooved side frame member, a sash, a block pivoted to said sash and slidable in said first-named groove, an arm pivoted at one end to said member, and a link pivoted to one of said elements, the sash and arm, and having a frictional slidable engagement with the other element.

3. A reversible window having longitudinally grooved side frame members, a sash having longitudinally grooved parts adjacent to the side frame members, blocks pivoted thereto and slidable in the first-named grooves, arms each pivoted at one end to said members, elements frictionally slidable in said second-named grooves, and links pivotally connected at their ends to said slidable elements and arms respectively.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FREDERICK HAUSER.

Witnesses:

FRANCIS M. WRIGHT,  
D. B. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

[Endorsed]: No. 244. U. S. Dist. Court, Nor. Dist. Calif. Deft. Exhibit "A." Filed Feb. 2, '17. W. B. Maling, Clerk.

No. 3004. U. S. Circuit Court of Appeals for the Ninth Circuit. Defendant's Exhibit "A." Filed June 1, 1917. F. D. Monekton, Clerk.



# Defendants' Exhibit "B"—Frotscher Patent No. 509,521.

(No Model.)

2 Sheets—Sheet 1.

O. FROTSCHER.  
WINDOW.

No. 509,521

Patented Nov. 28, 1893.

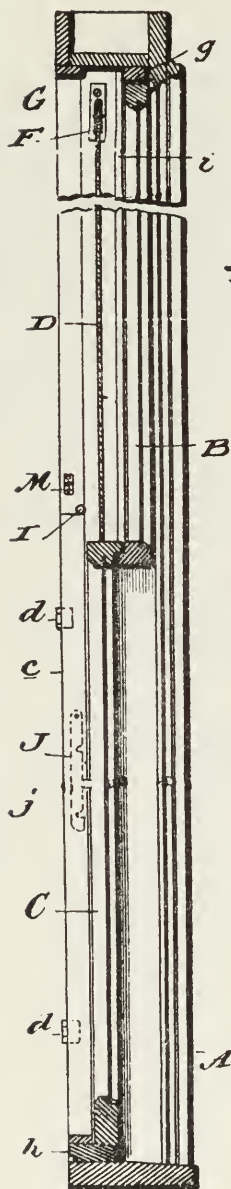


Fig. 1.

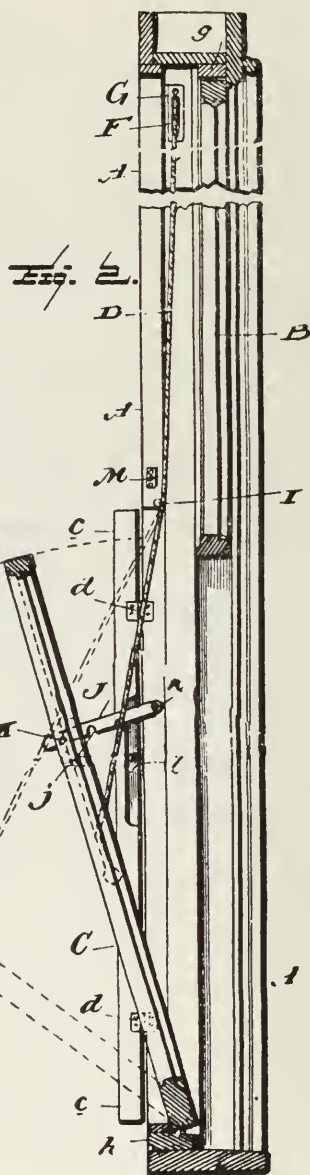


Fig. 2.

Witnesses

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Thos E Robertson

Inventor

Oscar Frotscher  
By J. M. Robertson  
Attorney

(No Model.)

2 Sheets—Sheet 2.

O. FROTSCHER.  
WINDOW.

No. 509,521.

Patented Nov. 28, 1893.

Fig. 1.

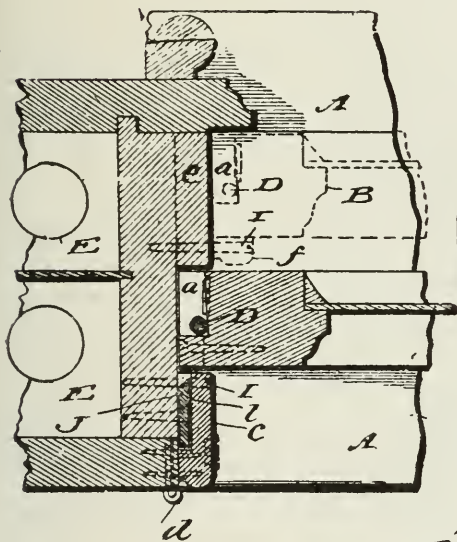


Fig. 3.

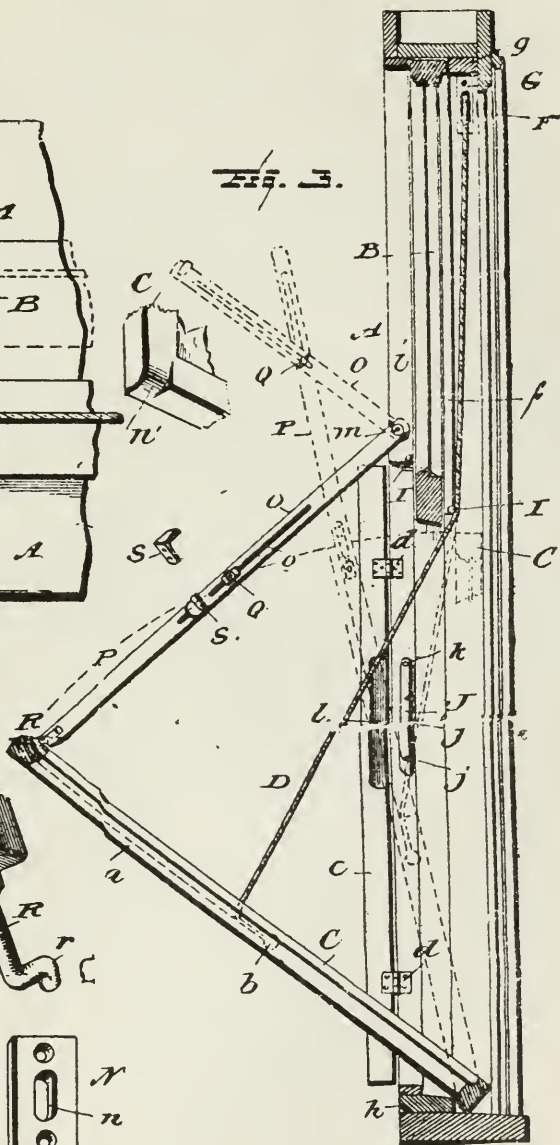
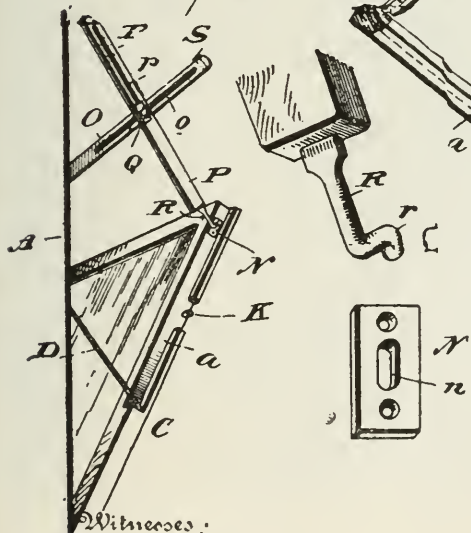


Fig. 5.



Witnesses:

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Inventor  
Oscar Frotcher,  
By J. H. Robertson  
Attorney.

## UNITED STATES PATENT OFFICE.

OSCAR FROTSCHER, OF PHILADELPHIA, PENNSYLVANIA.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 509,521, dated November 28, 1893.

Application filed April 28, 1893. Serial No. 472,212. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR FROTSCHER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Windows, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in windows of that class in which provision is made for allowing the sliding sash to be swung out or reversed if desired for cleaning or other purposes, and it has for its object among others to provide a window of this class which can be cheaply made, easily operated and not liable to get out of order.

It has for a further object to provide simple yet efficient means for holding the sash inclined for ventilation; and for a still further object the provision of means for firmly holding the sash in position for cleaning.

It aims further at certain improvements in the details of construction whereby better results are attained without increasing the cost of construction or interfering with the employment of the window in the ordinary.

Other objects and advantages of the invention will hereafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a vertical section of a window-frame, with the sashes in position. Fig. 2 is a similar view, with the lower sash shown open for ventilation by full lines, and in dotted lines shown open for the purpose of cleaning. Fig. 3 is a like view with the upper sash open for cleaning, the dotted lines showing the said sash in position for introducing the means for holding it firmly in place, the attachment being shown by full lines in the position it assumes when extended. Fig. 4 is a horizontal section through one side of the window with the upper sash indicated by dotted lines. Fig. 5 shows in detail the means for holding the sash in its inclined position for cleaning.

Like letters of reference indicate like parts throughout the several views in which they occur.

Referring now to the details of the drawings by letter, A designates the window-frame, B, the upper, and C the lower sash. The sashes are adapted to slide in the ways in the frame and are hung upon the cords or chains D and weights E, the former running over the pulleys F arranged in the pulley stiles G in any well-known way. Each of the sashes is cut away or rabbeted on the sides adjoining the pulley stiles from about the middle or center of its height upward as indicated at *a*, preferably toward the outside of the window as shown best in Fig. 4. Below this rabbet is a hole *b* to receive the cord or chain D which is knotted or fastened in any suitable manner. The lower sash is of usual size and is held in place by a stop-bead *c* which is divided on both sides of the window at a point somewhat above the top of the lower sash and I hinge them to the frame in any suitable manner as by hinges *d* as seen in Figs. 3 and 4. The upper sash is somewhat narrower than the lower one as will be seen from Fig. 4, and the space thus provided is occupied by the projection *e* which may be integral with the pulley stile, or it may be in the form of a cleat separate therefrom and secured thereto in any suitable manner as indicated by dotted lines in Fig. 4; in either form of construction it serves the same purpose. Making the pulley stile thicker than usual and rabbeting the same may be found the preferable way. A parting bead *f* is affixed to this projecting portion and extends from the bottom of the upper sash to the window bead as seen in Fig. 4, projecting about as much as the usual parting strip projects from the frame.

The attachment of the cord or chain to the sash is preferably a little above the center of gravity of the sash so that it will have a tendency to revert to its normal position and at the same time will require but little exertion to hold it in the position for cleaning. The pulleys F are preferably of different sizes, the back pulleys being the thickness of the projection *e* wider than the front one; by this means the weights will hang in their proper positions in the boxes of the frame.



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2 Against the head of the window frame in the plane of the upper sash I place a strip *g*, and on the sill in the plane of the lower sash I place a strip *h* as seen clearly in Fig. 1; the 5 thickness of the two combined being somewhat greater than the thickness of the meeting rails so as to allow the upper sash to move inward as indicated in Fig. 3. These strips may be independent pieces secured to the head and sill, or they may be formed by making these parts of the frame of thicker wood and rabbeting the same; or the whole thickness required may be located at the head of the window instead of part at the head and 15 part at the sill, as may be found most expedient.

With the parts constructed and arranged substantially as above set forth the operation is as follows: The movable portions of the 20 stop-head are thrown out on their hinges into the position in which the one is shown in Fig. 3; the lower sash can then be brought forward and taken out of the groove or way and can then be reversed on the cords by reason of the 25 cut away portions, for cleaning the outside; when returned to its normal position it can be slid upward inside of its groove or way. The upper sash can then be slid downward and at once brought forward out of its groove or way as seen in Fig. 3. Owing to the sashes being cut away at the sides as indicated at *a* they can be easily reversed without withdrawing them entirely out of the frame, whereas if they were not cut away, it would be necessary to lift the cords out of the grooves in order to draw out the sashes entirely clear of the frame before they could be reversed. The lower sash in order to swing inward more easily should have the outer lower corners 30 rounded off slightly where they are in contact with the cleat or projection in the groove of the upper sash, as shown at *n*; as seen in detail at the right of Fig. 4.

To prevent the rubbing of the chains or 35 cords against the wood in moving the sash inward I secure a screw *I* at the corner of the fixed inside stop bead *i* and also at the corner of the parting strip at the lower end of the same, on both sides of the window; these 40 screws are without projecting heads as seen in Fig. 4.

In order to bring the lower sash inward and hold it in an inclined position as shown in Fig. 2 for ventilation I secure a plate *J* to the pulley stile so that it will hang loosely on either or both sides of the window; this plate is provided with a plurality of notches *j* and is pivoted on a screw or other suitable means *k*, it being covered by the inside stop bead as 45 seen in Fig. 1, which is provided with a recess *l* to receive it as shown in Fig. 3. This plate is beveled on the side of the notches and is adapted to be engaged over a pin or screw *K* secured to the side of the sash and 50 thus the sash can be secured in as many positions as there are notches in the plate. In

bringing the sash in for cleaning this plate must, of course, be disengaged from the pin or screw.

In order to hold and support the sash in an 70 inclined position for cleaning I have provided the following means: At one or both sides of the window I attach to the inside stop bead above the division a plate *M* tapped to receive a thumb screw, and to the side of each 75 sash in the rabbet thereof a plate *N* with an elongated hole *n* as seen best in Fig. 5, where the plate *N* is shown detached. *O* and *P* are bars or strips each provided with an elongated slot *o* and *p* respectively as seen in Figs. 3 80 and 5, and mounted to slide in these slots is a thumb screw *Q* with a plate upon each side of the said strips to bind them together when the thumb screw is turned in the proper direction. One end of the plate or bar *O* is 85 connected to the plate *M* by a thumb screw *m* while one end of the bar or strip *P* is provided with a casting *R* which has a crook *r* as seen best in Fig. 5 which is adapted to engage the elongated slot of the plate *N*. The operation 90 of this part of the invention is as follows: The strips or bars being loosely connected by the thumb screw in the slots thereof and the thumb screw *m* engaged with the plate *M*, the crook is introduced into the elongated slot *n* of the plate *N* when the sash is brought inward as seen by dotted lines in Fig. 3. The sash is then brought inward to an angle of about forty-five degrees (45°), and as the sash 100 is turned to bring it into this position, as soon as the sash is turned from an upright position the crook turns in the slot and becomes so fixed that it cannot be displaced or disengaged until the sash is brought into its former position, parallel with the strip *P*. When 105 the sash has been brought to an angle of about forty-five degrees, as shown by full lines in Fig. 3 the thumb screw is tightened and the sash will thus be held firmly in that position. 110

*S* is an angle plate or iron secured to one of the bars or strips as seen in Fig. 3, and when the bars are brought into the position in which they are shown by full lines in Fig. 3 it serves as a stop to prevent further movement of the bars and prevents one going beyond the other as will be readily understood from reference to Fig. 3. The crook *r* being in a vertical plane about midway between the plates *N* of the upper and lower sash can be 120 used for either.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages. Parts may be used without the whole. The 125 supporting devices may be used in connection with other constructions of window.

What I claim as new is—

1. The combination with a window-frame, of two sashes of different widths, the upper 130 sash being the narrower and each sash having its edge cut away for a portion of its

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length, a projection between the narrow sash and the frame, and a movable stop bead in front of the bottom sash to provide a space below the upper sash for the withdrawal of the sash, substantially as specified.

2. The combination with a window-frame, of two sashes of different widths, the upper sash being the narrower and each sash having its edge cut away for a portion of its length, the sustaining cords attached to said sash near the end of the cut away portion, a projection between the narrow sash and the frame, a parting strip set in front of the upper sash only and a movable stop bead opposite the lower sash, substantially as and for the purpose specified.

3. The combination with a window frame having two sashes hung therein, the sashes and guides for the same being constructed to allow the top of the sashes to swing inward and downward, of a plate on the sill of the frame in line with the lower sash and a plate in the head of said frame in line with the upper sash, said upper sash being narrower than the lower sash and hung on two cords, one on each side, whereby the top of said sash may

swing inward and downward on said cords, under the bottom of the lower sash when the latter is raised, substantially as described.

4. The combination with a sash mounted to swing, of means for holding the same in an inclined position, said means comprising two pivotally and adjustably-connected slotted bars, screws passing through the slots for adjusting them, and means for detachably connecting one of said bars with a sash, substantially as specified.

5. The combination with a window-frame and a sash mounted to swing, of a plate on the sash having an elongated opening and two adjustably-connected slotted bars, one of which is provided with a crook adapted to enter said opening when in one position, and engage with the rear of said plate when turned, substantially as specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 26th day of April, 1893.

OSCAR FROTSCHER.

Witnesses:

JOSHUA R. MORGAN,  
OTTO HEROLD.

[Endorsed]: No. 244. U. S. Dist. Court, Nor. Dist. Calif. Deft. Exhibit "B." Filed Feb. 2, '17. W. B. Maling, Clerk.

No. 3004. U. S. Circuit Court of Appeals for the Ninth Circuit. Defendant's Exhibit "B." Filed June 1, 1917. F. D. Monckton, Clerk.